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FOREST SURVEY RELEASE NO. 1 — A 1936 PROGRESS REPORT

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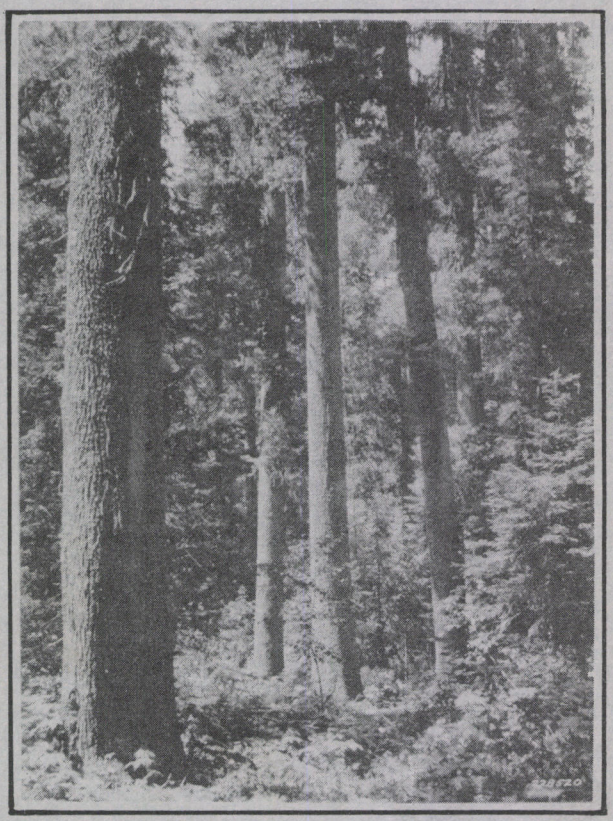
FEB 11 1938

CUTTING DEPLETION
IN THE
NORTHERN ROCKY MOUNTAIN REGION

INCLUDING

SAWLOG DEPLETION IN SOUTHERN IDAHO

{FROM DEPLETION PHASE OF THE FOREST SURVEY}



U.S. DEPARTMENT OF AGRICULTURE — FOREST SERVICE

NORTHERN ROCKY MOUNTAIN

FOREST & RANGE EXPERIMENT STATION

MISSOULA, MONTANA

STEPHEN N. WYCKOFF — DIRECTOR

M. BRADNER — REGIONAL DIRECTOR FOREST SURVEY

S.B. HUTCHINSON & C.N. WHITNEY

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FEB 11 1938

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
NORTHERN ROCKY MOUNTAIN FOREST AND RANGE EXPERIMENT STATION

ADDRESS REPLY TO
DIRECTOR
AND REFER TO

MISSOULA, MONTANA

RE-NRM
Forest Survey
Publications

February 7, 1938

Director,
Northeastern Experiment Station,
335 Prospect St.,
New Haven, Conn.

Dear Sir:

From our limited supply of this bulletin, I am enclosing a copy of "Cutting Depletion in the Northern Rocky Mountain Region, including Sawlog Depletion in Southern Idaho" in which the Forest Survey has attempted to measure the annual cutting drain which has entered into each of the various timber products. It is hoped that the 50 tables herein will prove sufficiently comprehensive to serve any requirements you may have for such information.

A supplemental sheet is attached showing the 1935-1936 sawlog depletion by state divisions.

Very truly yours,

M. Bradner

M. BRADNER, In Charge,
Division of Forest Survey

Enclosure
SBH

RE-NRM
Forest Survey

ANNUAL SAWLOG PRODUCTION[1] 1935-1936
M. Board Feet

Species	Northeastern[2] Washington		Northern[3] Idaho		Southern Idaho		Western[4] Montana		Eastern Montana	
	Lumber Tally	Log Scale	Lumber: Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale
1935										
Cedar	751	565	4,043	3,040			5	4		
Douglas Fir	10,184	7,657	24,773	18,626	19,905	14,966	31,809	23,917	2,875	2,162
Hemlock	44	36	416	341						
W. White Pine	18,865	15,092	423,166	338,533			17,878	14,302		
Larch	12,378	9,307	21,573	16,220	654	492	56,476	42,463		
Lodgepole Pine	3	2	21	18	1,164	970	213	177	1,200	1,000
Engelmann Spruce	6,456	5,380	4,652	3,877	831	692	12,162	10,135	290	242
Ponderosa Pine	56,828	48,990	73,462	63,329	94,757	81,687	111,177	95,842	3,676	3,169
White Fir	3,140	2,574	12,671	10,386	1,537	1,260			74	60
Cottonwood			6	5	184	159	3	3	58	50
Total	108,649	89,603	564,783	454,375	119,032	100,226	229,723	186,843	8,173	6,683
1936										
Cedar	382	287	3,629	2,729			100	75		
Douglas Fir	15,512	11,663	36,239	27,247	27,898	20,977	48,624	36,559	3,653	2,747
Hemlock			1,222	1,001						
W. White Pine	41,557	33,246	485,938	388,750			19,848	15,878		
Larch	8,234	6,191	27,638	20,780	248	186	74,287	55,855	80	60
Lodgepole Pine			22	18	1,381	1,151	219	183	849	708
Engelmann Spruce	1,657	1,380	6,498	5,415	1,301	1,084	12,413	10,344	254	212
Ponderosa Pine	74,309	64,060	84,237	72,618	109,873	94,718	128,368	110,662	2,426	2,091
White Fir	789	647	11,594	9,503	1,177	965	859	704	65	53
Cottonwood	53	46	4	3	52	45	6	6		
Total	142,493	117,520	657,021	528,064	141,930	119,126	284,724	230,266	7,327	5,871

1/ Due to the intersectional transportation of logs for manufacture, log production figures for a single unit may not be the same as the lumber output of that unit.
2/ Spokane, Stevens, Pend Oreille Counties.
3/ North of the Salmon River.
4/ West of the Continental Divide.

R

CUTTING DEPLETION FROM THE GREEN TIMBER RESOURCES OF MONTANA, NORTHERN IDAHO AND NORTHEASTERN WASHINGTON AND SAWLOG DEPLETION IN SOUTHERN IDAHO

By

S. Blair Hutchison

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Forest Survey
Depletion Phase

CUTTING DEPLETION FROM THE GREEN TIMBER RESOURCES OF MONTANA, NORTHERN IDAHO AND NORTHEASTERN WASHINGTON AND SAWLOG DEPLETION IN SOUTHERN IDAHO

By

S. Blair Hutchison

GENERAL

As the task of handling the forest resources becomes increasingly technical and scientific and the management more intensive, it is ever necessary to have at hand more complete and detailed data for intelligent planning. The Forest Survey in its inventory, growth, requirements and depletion phases is attempting to meet the present demand for better information. This report, dealing with the cutting drain, marks the completion of one portion of the depletion phase of the survey. Losses by fire, insects and disease will be covered in separate reports.

Considerable effort has been spent in obtaining, as completely as possible, a record of the annual volume of all types of cutting from the greenwood resources, including drain for private as well as commercial use. Obviously, in the case of several of the minor timber products, it would be an enormous and practically impossible task to obtain a complete record of cutting for so large an area. In these cases, individual studies of consumption, based on samples, made it possible to arrive at reasonable and sound estimates.

For direct application to the inventory figures the information is presented in tabular form for each of the timber products by counties, species and tree size. By the latter is meant an empirical split of the total volume into that portion coming from trees of sawtimber size, recorded in thousand board feet, and that amount coming from trees of less than sawtimber size, recorded in cubic feet. For white pine, ponderosa pine, and lodgepole pine, twelve-inch diameter breast-high is set as the lower limit for sawtimber size, while 14 inches is the minimum for other species. To satisfy any other demands for information the data have been further tabulated by counties in terms of board-foot volume and the common units of measure.

A large proportion of the fuelwood and fence-post material consumed each year is produced from dead timber. Since this production does not constitute a true drain from the forest resources, being instead a part of the losses by fire, insects and disease, it has not been included in the depletion tables, but only in the supplementary production tables.

SAWLOGS

Sources of Data

Under the classification of sawlogs is included all of the material cut into lumber, sawed ties, and sawed mine timbers.

In cooperating with the Bureau of the Census, the Products Division of the Northern Rocky Mountain Forest and Range Experiment Station has for many years collected statistics of

Table 1

INTERSTATE LOG SHIPMENTS - REGION ONE

M Board Feet Lumber Tally

YEAR	NORTH IDAHO LOGS MILLED IN WASHINGTON	WASHINGTON LOGS MILLED IN NORTH IDAHO	MONTANA LOGS MILLED IN IDAHO
1925	99,462	8,778	1,624
1926	72,492	9,915	9,280
1927	68,490	10,599	134
1928	66,387	12,893	
1929	93,427	20,115	
1930	57,980	16,382	
1931	61,689	16,316	
1932	34,626	2,370	
1933	38,350	9,383	
1934	61,283	8,229	

forest products. Census tabulations were used as the basis for the sawlog depletion records, which cover the period from 1925 to 1934, inclusive.

There are a few organizations logging in one county and milling in another, and a number of larger mills that receive their logs from two or more counties. For the purposes of a depletion record, it was necessary to shift and split the mill production into the counties from which the logs originated. These changes were made on the basis of information obtained from the mills or from Phillip Neff, Logging Engineer, Region One, and I. V. Anderson of the Forest Products Office, both of these men being in close touch with the activities in the industry.

The bulk of the interstate shipments are from northern Idaho to several large Washington mills located in Spokane and Pend Oreille Counties. Besides this, there is a smaller movement of logs from Spokane County into Idaho. In 1925, 1926 and 1927 there was a small amount of material moving from Montana into Idaho. The volume of the interstate shipments is shown in Table 1.

The following overrun factors, taken from a report by M. Bradner and Phillip Neff, were used in converting from lumber tally to log scale.1/

1/ LOG SCALE VERSUS LUMBER TALLY - A discussion of overrun and the factors affecting it. Timberman, July 1926, Volume 27, No. 9.

Cedar - - - - - - - -	33 percent	Lodgepole Pine -	20 percent
Douglas fir - - - -	33 "	Engelmann spruce	20 "
Hemlock - - - - - -	22 "	Ponderosa pine -	16 "
Idaho white pine- -	25 "	White fir - - - -	22 "
Larch - - - - - - -	33 "	Cottonwood - - -	16 "

In Tables 2, 3, 4 and 5 the annual and average log production by species for the ten-year period is shown for each of the four parts of the Region in terms of lumber tally and log scale. Table 6 presents the same information for southern Idaho, and Table 7 is a summarization of the previous sectional tabulations into larger units. These data for the Region One Counties have been simplified in Tables 8, 9, 10 and 11 which give merely the log-scale averages by counties.

Application

The tabulations of sawlog production as set up are no more than an accurate record of the cutting for the past ten years. Prediction of future depletion in the making of management plans for the various counties and economic units will necessitate the consideration of several important factors.

The decade covered includes five bumper years and five depression years. It may be advisable to use some shorter, more representative period for certain counties which have reached or are reaching a cut-over condition where the indications point to a lower average cut, or in several counties where the reverse is true. A number of large mills have

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Table 2—ANNUAL SAWLOG PRODUCTION * - NORTHEASTERN WASHINGTON

(M board feet)

Northern Rocky Mountain Forest
& Range Experiment Station,
Missoula, Montana,
March 20, 1936.

Year	Cedar		Douglas Fir		Hemlock		Idaho White Pine		Larch		Lodgepole Pine		Engelmann Spruce		Ponderosa Pine		White Fir		Cottonwood		Total	
	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale
SPOKANE COUNTY																						
1925	301	226	9,271	6,971			4,615	3,692	2,972	2,234					61,279	52,827	1,530	1,254	3	3	79,971	67,207
1926	240	180	6,307	4,742			6,745	5,396	7,282	5,475			50	42	64,530	55,629	2,076	1,702	33	27	87,263	73,193
1927	292	220	13,306	10,005			8,392	6,714	8,061	6,061			15	13	43,576	37,565	2,433	1,994	3	3	76,078	62,575
1928	439	330	8,599	6,465			7,451	5,961	6,674	5,018			661	551	37,446	32,281	2,300	1,885	3	3	63,573	52,494
1929	516	388	12,974	9,755			8,303	6,642	7,832	5,889			301	251	38,349	33,060	4,156	3,407	3	3	72,434	59,395
1930	951	715	10,361	7,790			8,128	6,502	5,519	4,150			486	405	23,456	20,221	4,039	3,311	3	3	52,943	43,097
1931	474	356	4,213	3,167			8,994	7,195	2,742	2,062			234	195	16,885	14,556	2,993	2,453	3	3	36,538	29,987
1932	199	150	931	700			4,017	3,214	608	457			74	62	9,055	7,806	480	393	3	3	15,367	12,785
1933	191	144	2,315	1,741			7,763	6,210	1,612	1,212			80	66	13,861	11,949	1,602	1,313	19	15	27,443	22,650
1934	142	107	4,221	3,174			11,280	9,024	1,595	1,199			333	277	22,416	19,324	1,762	1,444			41,749	34,549
Total	3,745	2,816	72,498	54,510			75,688	60,550	44,897	33,757			2,234	1,862	330,853	285,218	23,371	19,156	73	63	553,359	457,932
Average	375	281	7,250	5,451			7,569	6,055	4,490	3,375			223	187	33,085	28,522	2,337	1,916	7	6	55,336	45,793
STEVENS COUNTY																						
1925	4	3	6,709	5,044	50	41	13,221	10,577	9,423	7,085			4,460	3,717	58,056	50,048	363	297			92,286	76,812
1926	4	3	5,859	4,405	50	41	5,871	4,697	2,890	2,173			318	265	96,660	83,328	338	277	38	33	112,028	95,222
1927			6,064	4,559			4,556	3,645	7,106	5,343			888	740	84,625	72,953	983	806			104,222	88,046
1928	260	195	4,809	3,616			4,144	3,315	4,965	3,733			2,774	2,312	90,376	77,910	583	478			107,911	91,559
1929	92	69	8,328	6,262			2,354	1,883	9,028	6,788			1,171	976	91,937	79,256	2,044	1,675	35	30	114,989	96,939
1930	791	595	12,918	9,713	1	1	4,704	3,763	2,094	1,574			1,269	1,057	58,842	50,726	405	332	18	15	81,042	67,776
1931	207	156	2,509	1,887			6,137	4,910	4,985	3,748			235	196	32,317	27,859	576	472			46,966	39,228
1932	17	13	1,550	1,165			3,055	2,444	775	583			103	86	11,120	9,587	167	137			16,787	14,015
1933	251	189	2,348	1,765			4,090	3,272	1,236	929			39	32	15,091	13,009	324	266			23,379	19,462
1934	184	138	3,838	2,886			5,484	4,387	1,206	907			829	691	24,310	20,957	307	252	191	165	36,349	30,383
Total	1,810	1,361	54,932	41,302	101	83	53,616	42,893	43,708	32,853			12,086	10,072	563,334	485,633	6,090	4,992	282	243	735,959	619,442
Average	181	136	5,493	4,130	10	8	5,362	4,289	4,371	3,287			1,209	1,007	56,333	48,563	609	499	28	25	73,596	61,944
PEND OREILLE COUNTY																						
1925	630	474	9,480	7,128	140	115	22,929	18,343	7,170	5,391			569	474	14,283	12,313	3,143	2,576			58,344	46,814
1926	1,064	800	9,984	7,507	89	73	28,392	22,714	10,549	7,932	660	550	678	565	20,633	17,787	4,199	3,442			76,248	61,370
1927	1,309	984	643	483	218	179	39,552	31,642	16,160	12,150			1,085	904	19,614	16,909	6,660	5,459			85,241	68,710
1928	1,253	942	8,014	6,026	4,976	4,079	30,103	24,082	7,841	5,895			4,908	4,090	19,080	16,448	2,106	1,726			78,281	63,288
1929	1,062	798	13,993	10,521	149	122	21,602	17,282	2,889	2,173			2,717	2,264	23,155	19,961	10,440	8,557			76,007	61,678
1930	1,299	977	2,117	1,592			30,915	24,732	13,993	10,521			9,290	7,742	19,757	17,032	4,306	3,530			81,677	66,126
1931	1,116	839	579	435	46	38	23,708	18,967	11,353	8,536			105	87	9,803	8,451	10,420	8,541			57,130	45,894
1932	334	251	2,094	1,574	19	15	15,728	12,582	2,457	1,847			837	698	5,192	4,476	465	381			27,126	21,824
1933	2,732	2,054	878	660	402	329	34,319	27,455	1,049	789			1,464	1,220	7,392	6,372	1,145	939			49,381	39,818
1934	580	436	1,574	1,183			21,429	17,143	2,309	1,736			7,810	6,508	3,868	3,335	905	742			38,475	31,083
Total	11,379	8,555	49,356	37,109	6,039	4,950	268,677	214,942	75,770	56,970	660	550	29,463	24,552	142,777	123,084	43,789	35,893			627,910	506,605
Average	1,138	856	4,935	3,711	604	495	26,868	21,494	7,577	5,697	66	55	2,946	2,455	14,278	12,309	4,379	3,589			62,791	50,661
TOTALS																						
1925	935	703	25,460	19,143	190	156	40,765	32,612	19,565	14,710			5,029	4,191	133,618	115,188	5,036	4,127	3	3	230,601	190,833
1926	1,308	983	22,150	16,654	139	114	41,008	32,807	20,721	15,580	660	550	1,046	872	181,823	156,744	6,613	5,421	71	60	275,539	229,785
1927	1,601	1,204	20,013	15,047	218	179	52,500	42,001	31,327	23,554			1,988	1,657	147,815	127,427	10,076	8,259	3	3	265,541	219,331
1928	1,952	1,467	21,422	16,107	4,976	4,079	41,698	33,358	19,480	14,646			8,343	6,953	146,902	126,639	4,989	4,089	3	3	249,765	207,341
1929	1,670	1,255	35,295	26,538	149	122	32,259	25,807	19,749	14,850			4,189	3,491	153,441	132,277	16,640	13,639	38	33	263,430	218,012
1930	3,041	2,287	25,396	19,095	1	1	43,747	34,997	21,606	16,245			11,045	9,204	102,055	87,979	8,750	7,173	21	18	215,662	176,999
1931	1,797	1,351	7,301	5,489	46	38	38,839	31,072	19,080	14,346			574	478	59,005	50,866	13,989	11,466	3	3	140,634	115,109
1932	550	414	4,575	3,439	19	15	22,800	18,240	3,840	2,887			1,014	846	25,367	21,869	1,112	911	3	3	59,280	48,624
1933	3,174	2,387	5,541	4,166	402	329	46,172	36,937	3,897	2,930			1,583	1,318	36,344	31,330	3,071	2,518	19	15	100,203	81,930
1934	906	681	9,633	7,243			38,193	30,554	5,110	3,842			8,972	7,476	50,594	43,616	2,974	2,438	191	165	116,573	96,015
Total	16,934	12,732	176,786	132,921	6,140	5,033	397,981	318,385	164,375	123,590	660	550	43,783	36,486	1,036,964	893,935	73,250	60,041	355	306	1,917,228	1,583,979
Average	1,694	1,273	17,678	13,292	614	503	39,799	31,838	16,438	12,359	66	55	4,378	3,649	103,696	89,394	7,325	6,004	35	31	191,723	158,398

* Includes Washington logs milled in Idaho.
Does not include Idaho logs milled in Washington.

RE-NRM
Forest Survey

Table 3. SAWLOG PRODUCTION - NORTHERN IDAHO*

County	Cedar		Douglas Fir		Hemlock		Idaho White Pine		Larch		Lodgepole Pine		Engelmann Spruce		Ponderosa Pine		White Fir		Cottonwood		Total	
	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale
AVERAGE ANNUAL PRODUCTION - BY COUNTIES M. Board Feet Basis 10-year Average 1925-1934 incl.																						
Benewah	458	345	7,294	5,485	8	7	44,205	35,364	7,479	5,623	1	1	567	472	24,073	20,753	3,632	2,976	**	**	87,717	71,026
Bonner	6,039	4,541	7,653	5,755	2,796	2,291	72,124	57,699	10,402	7,821	275	229	1,064	887	16,477	14,204	5,281	4,329			122,111	97,756
Boundary	258	194	3,061	2,301	78	64	7,408	5,927	4,115	3,094	2	2	335	280	10,107	8,712	2,176	1,783	1	1	27,541	22,358
Clearwater	1,290	989	7,204	5,416	30	24	100,361	80,290	5,355	4,026	8	6	683	570	9,422	8,122	13,345	10,940			137,698	110,363
Idaho	1	1	454	341	1	1	7	5	73	55	13	11	28	23	1,271	1,096	115	94			1,963	1,627
Kootenai	1,253	942	12,740	9,579	44	37	48,270	38,616	12,080	9,083			277	231	19,860	17,121	8,038	6,588	187	161	102,749	82,358
Latah	2,050	1,541	8,192	6,159			36,291	29,033	9,565	7,192	9	8	617	513	15,858	13,671	7,114	5,831	3	3	79,699	63,951
Lewis			1,214	913			20	16	1,532	1,152					16,705	14,400	3	3			19,474	16,484
Nezperce			57	42			6	5	22	17			7	6	183	158	11	9			286	237
Shoshone	1,039	781	5,476	4,870	35	29	68,636	54,908	6,107	4,591			3,549	2,957	6,448	5,559	2,744	2,249	2	2	95,036	75,946
North Idaho	12,388	9,314	54,345	40,861	2,992	2,453	377,328	301,863	56,730	42,654	308	257	7,127	5,939	120,404	103,796	42,459	34,802	193	167	674,274	542,106
Year	TOTAL ANNUAL PRODUCTION M Board Feet																					
1925	36,206	29,476	107,988	81,194	4,319	3,540	428,056	342,444	113,369	85,241	78	65	22,940	19,116	241,777	208,430	85,737	70,276	465	400	1,043,935	840,182
1926	24,596	18,493	74,645	56,123	3,949	3,237	387,818	310,255	74,237	55,815	2,719	2,265	16,916	14,097	193,853	167,115	56,399	46,227	303	175	835,335	673,802
1927	12,510	13,917	61,912	46,550	2,710	2,221	447,038	357,630	97,710	73,467	167	140	4,746	3,956	161,492	139,217	51,537	42,242	487	420	846,309	679,760
1928	13,568	10,201	93,910	70,609	3,143	2,576	456,888	365,510	82,769	62,233	22	18	7,606	6,338	158,924	137,005	66,500	54,508	216	186	883,546	709,184
1929	13,336	10,028	93,428	70,246	2,266	1,858	478,358	382,687	85,578	64,343	3	3	6,001	5,000	187,732	161,835	82,445	67,578	57	49	949,204	763,627
1930	7,221	5,429	47,913	36,024	369	302	473,164	378,531	55,596	41,802	27	22	5,405	4,504	126,589	109,128	46,592	38,191	450	388	765,326	614,321
1931	4,077	3,067	14,598	10,976	1,728	1,416	357,642	286,113	17,786	13,372			3,471	2,894	40,976	35,325	22,987	18,842	18	16	463,283	372,021
1932	729	548	10,418	7,834	286	235	196,674	157,339	10,808	8,125	36	31	918	766	19,725	17,000	2,875	2,356	32	28	242,499	194,262
1933	1,134	852	12,461	9,386	625	512	241,650	193,321	12,774	9,605	15	12	1,975	1,645	22,139	19,085	3,501	2,871	11	10	296,305	237,299
1934	1,506	1,134	26,152	19,661	10,530	8,631	305,996	244,796	16,668	12,532	13	11	1,294	1,076	50,834	43,823	6,018	4,932			419,011	336,596
Total	123,883	93,145	543,445	408,603	29,925	24,528	3,773,284	3,018,626	567,295	426,535	3,080	2,567	71,272	59,392	1,204,039	1,037,963	424,591	348,023	1,939	1,672	6,742,753	5,421,054
Average	12,388	9,314	54,345	40,861	2,992	2,453	377,328	301,863	56,730	42,654	308	257	7,127	5,939	120,404	103,796	42,459	34,802	193	167	674,274	542,106

* Includes Idaho logs milled in Washington. Washington and Montana logs milled in Idaho not included.
** Less than 1 M. feet.

RE-NRM
Forest Survey

Table 4-- ANNUAL SAW LOG PRODUCTION * - WESTERN MONTANA

(M board feet)

Northern Rocky Mountain Forest and Range Experiment Station,
Missoula, Montana,
March 20, 1936.

Year	Cedar		Douglas Fir		Hemlock		Idaho White Pine		Larch		Lodgepole Pine		Engelmann Spruce		Ponderosa Pine		White Fir		Cottonwood		Total	
	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale
DEERLODGE COUNTY																						
1925			410	308							8	6									418	314
1926																						
1927											50	42									50	42
1928																						
1929																						
1930											6	5									6	5
1931			35	26							15	14	10	8							60	48
1932			17	13							100	83									117	96
1933			30	23							10	8									40	31
1934			60	45							112	93	20	17							192	155
Total			552	415							301	251	30	25							883	691
Average			55	42							30	25	3	2							88	69
FLATHEAD COUNTY																						
1925	612	460	20,844	15,672	3	3	1,386	1,109	50,895	38,267			4,872	4,060	12,016	10,359	2,000	1,639	10	8	92,638	71,577
1926	30	23	21,053	15,829			3,657	2,926	50,216	37,756	45	37	5,865	4,888	19,865	17,125	250	205			100,981	78,789
1927			31,977	24,043			3,280	2,624	54,107	40,682			4,838	4,032	15,737	13,566	250	205	60	52	110,249	85,204
1928			31,769	23,887			4,305	3,444	57,487	43,223	20	17	7,059	5,883	12,364	10,659	231	189	8	7	113,243	87,309
1929			28,260	21,248			5,106	4,085	59,218	44,525	14	12	11,074	9,228	14,055	12,116			5	4	117,732	91,218
1930			16,186	12,170			9,456	7,565	55,703	41,882			9,153	7,628	24,362	21,002	30	25			114,890	90,272
1931	37	28	8,629	6,488			8,054	6,443	35,753	26,882			2,490	2,075	9,162	7,898					64,125	49,814
1932			7,277	5,472			133	106	25,709	19,330			3,843	3,201	12,844	11,072	3	3			49,809	39,184
1933			4,637	3,486			583	466	14,474	10,883	5	4	7,386	6,155	22,307	19,230	100	82			49,492	40,306
1934			10,152	7,633			6,134	4,907	28,922	21,746	11	9	3,774	3,145	9,324	8,038	20	16	8	7	58,345	45,501
Total	679	511	180,784	135,928	3	3	42,094	33,675	432,484	325,176	95	79	60,354	50,295	152,036	131,065	2,884	2,364	91	78	871,504	679,174
Average	68	51	18,078	13,593			4,209	3,368	43,248	32,518	10	8	6,035	5,029	15,205	13,106	289	236	10	8	87,150	67,917
GRANITE COUNTY																						
1925			423	318					35	26					130	112					588	456
1926			460	346					5	4			20	17	42	36					527	403
1927			105	79																	105	79
1928			260	196					40	30											300	226
1929			952	716											25	21					977	737
1930			1,020	767							10	8									1,020	767
1931			760	571									40	33							770	579
1932			100	75																	140	108
1933			220	166									46	38							220	166
1934			119	89																	165	127
Total			4,419	3,323					80	60	10	8	106	88	197	169					4,812	3,648
Average			442	332					8	6	1	1	10	9	20	17					481	365
LAKE COUNTY																						
1925			3,240	2,436					3,510	2,639					31,645	27,280					38,395	32,355
1926			1,624	1,221					2,939	2,210			5	4	30,601	26,380					35,169	29,815
1927			1,900	1,429					2,430	1,827					19,030	16,405					23,360	19,661
1928			4,087	3,073					3,189	2,398					25,760	22,207					33,036	27,678
1929			3,158	2,374					5,098	3,833					38,619	33,292					46,875	39,499
1930			1,141	858			2	2	1,798	1,352	2	2	2	2	17,147	14,782					20,092	16,998
1931			284	213					289	217					2,996	2,583					3,569	3,013
1932			162	122					165	124					2,617	2,256	3	3	2	2	2,949	2,507
1933			11	8					249	187			2	2	1,536	1,324			2	2	1,800	1,523
1934			1,859	1,398					4,732	3,558	20	16	707	589	10,411	8,975			3	2	17,732	14,538
Total			17,466	13,132			2	2	24,399	18,345	22	18	716	597	180,362	155,484	3	3	7	6	222,977	187,587
Average			1,747	1,313					2,440	1,835	2	2	72	60	18,036	15,548			1	1	22,298	18,759

* Includes Western Montana Logs milled in Northern Idaho and Eastern Montana.

RE-NRM
Forest Survey

Table 4.-- ANNUAL SAWLOG PRODUCTION * - WESTERN MONTANA

(M board feet)

Northern Rocky Mountain Forest and Range Experiment Station,
Missoula, Montana,
March 20, 1936.

Year	Cedar		Douglas Fir		Hemlock		Idaho White Pine		Larch		Lodgepole Pine		Engelmann Spruce		Ponderosa Pine		White Fir		Cottonwood		Total	
	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale
LINCOLN COUNTY																						
1925	145	109	13,044	9,808	233	191	5,464	4,371	36,889	27,736			222	185	46,303	39,915					102,300	82,316
1926	177	133	8,186	6,155	117	96	8,495	6,796	26,172	19,678			657	548	47,024	40,538	117	96	205	177	91,150	74,217
1927	1	1	19,087	14,351	8	7	9,325	7,460	36,832	27,693			893	744	42,346	36,505	565	463			109,057	87,224
1928			12,162	9,144	214	175	14,146	11,317	26,974	20,281			337	281	34,551	29,785					88,384	70,983
1929	36	27	11,834	8,898			16,548	13,238	22,857	17,185	910	758	4,869	4,057	25,555	22,030					82,609	66,193
1930			2,216	1,666			16,045	12,836	9,482	7,129	2	2	3,486	2,905	17,628	15,197					48,859	39,735
1931			1,883	1,416			9,803	7,842	4,259	3,202	2	2	212	177	10,013	8,632	15	12	5	4	26,192	21,287
1932			1,014	762			2,572	2,058	3,776	2,839			50	42	12,458	10,740			10	8	19,880	16,449
1933			2,172	1,633			4,115	3,292	5,764	4,335			1,151	959	20,590	17,750					33,792	27,969
1934			3,888	2,923			935	748	8,518	6,405			1,939	1,615	15,438	13,309					30,718	25,000
Total	359	270	75,486	56,756	572	469	87,448	69,958	181,523	136,483	914	762	13,816	11,513	271,906	234,402	697	571	220	189	632,941	511,373
Average	36	27	7,549	5,676	57	47	8,745	6,996	18,152	13,648	9	76	1,381	1,151	27,190	23,440	70	57	22	19	63,294	51,137
MINERAL COUNTY																						
1925			1,107	832			119	95	3,557	2,674					5,201	4,484					9,984	8,085
1926			1,545	1,162					2,476	1,862					9,326	8,040					13,347	11,064
1927			1,113	837					1,783	1,341					9,407	8,109					12,303	10,287
1928			1,171	880					1,409	1,059					6,690	5,767					9,270	7,706
1929			387	291					439	330			15	13	591	509					1,432	1,143
1930			60	45					72	54			85	70	217	187					434	356
1931			50	38					35	26					30	26					115	90
1932									2	2			5	4	27	23					34	29
1933	20	14	45	34					154	116			25	21	50	43	5	4			299	232
1934			103	77					192	144			30	25	25	22					350	268
Total	20	14	5,581	4,196			119	95	10,119	7,608			160	133	31,564	27,210	5	4			47,568	39,260
Average	2	2	558	420			12	10	1,012	761			16	13	3,157	2,721					4,757	3,926
MISSOULA COUNTY																						
1925			24,495	18,417					25,751	19,362	1	1			8,857	7,635					59,104	45,415
1926			27,717	20,840			30	25	26,186	19,689					15,142	13,053					69,075	53,607
1927			16,984	12,770					25,123	18,889					29,217	25,187					71,324	56,846
1928			14,571	10,956			5	4	22,664	17,041					28,151	24,268					65,391	52,269
1929	4	3	17,696	13,305					10,379	7,804					28,108	24,231					56,187	45,343
1930			16,093	12,100					6,749	5,074					25,247	21,765	12	10			48,101	38,949
1931			13,342	10,032					590	444					21,360	18,414	6	5			35,298	28,895
1932			4,483	3,371					2,702	2,031					13,849	11,939	36	29	5	4	21,075	17,374
1933			2,334	1,754					2,333	1,754	8	6			9,939	8,568					14,614	12,082
1934			3,691	2,775					3,897	2,930					5,054	4,357					12,642	10,062
Total	4	3	141,406	106,320			35	29	126,374	95,018	9	7			184,924	159,417	54	44	5	4	452,811	360,842
Average			14,141	10,632			4	3	12,637	9,502	1	1			18,493	15,942	5	4			45,281	36,084
POWELL COUNTY																						
1925			125	94					10	8											135	102
1926			189	142											55	47					244	189
1927			102	77											75	64	25	20			202	161
1928			615	462									4	3	484	417					1,103	882
1929			1,098	826									5	4	843	727	85	70			2,031	1,627
1930			198	149									11	9	45	39	10	8			264	205
1931			140	105									30	25	20	17					190	147
1932			80	60									5	4	40	34			5	4	130	102
1933			115	86					5	4					90	78					210	168
1934			243	183			23	18							47	41					313	242
Total			2,905	2,184			23	18	15	12			55	45	1,699	1,464	120	98	5	4	4,822	3,825
Average			290	218			2	2	1	1			6	5	170	149	12	10			482	383

* Includes - Western Montana Logs milled in Northern Idaho and Eastern Montana.

RE-NRM
Forest Survey

Table 4.- ANNUAL SAWLOG PRODUCTION* - WESTERN MONTANA

(M board feet)

Northern Rocky Mountain Forest
and Range Experiment Station,
Missoula, Montana,
March 20, 1936.

Year	Cedar		Douglas Fir		Hemlock		Idaho White Pine		Larch		Lodgepole Pine		Engelmann Spruce		Ponderosa Pine		White Fir		Cottonwood		Total	
	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale
RAVALLI COUNTY																						
1925			726	545							2	2			8,852	7,631					9,580	8,178
1926			723	544					15	11					10,225	8,815					10,963	9,370
1927			475	357							23	19			5,203	4,485					5,701	4,861
1928			2,754	2,071					527	396					25,749	22,197					29,030	24,664
1929			1,754	1,319					311	234					16,020	13,810	5	4			18,090	15,367
1930			2,169	1,631					472	355					19,188	16,541	35	29			21,864	18,556
1931			666	501					112	84					5,520	4,759					6,298	5,344
1932			1,147	862					214	161					10,482	9,036			5	4	11,848	10,063
1933			1,030	774					227	171	12	10			9,817	8,463					11,086	9,418
1934			1,690	1,271					385	289					21,042	18,140					23,117	19,700
Total			13,134	9,875					2,263	1,701	37	31			132,098	113,877	40	33	5	4	147,577	125,521
Average			1,316	985					226	170	4	3			13,210	11,388	4	4			14,758	12,552
SANDERS COUNTY																						
1925			7,011	5,271	2,680	2,197	2,946	2,357	12,892	9,693					43,901	37,846					69,430	57,364
1926	15	11	4,756	3,576	1,254	1,027	3,034	2,427	6,096	4,585			164	137	42,863	36,951	800	655			58,982	49,367
1927			6,361	4,783			152	121	6,418	4,826			13	11	44,211	38,113	1	1			57,156	47,855
1928			2,246	1,689			50	40	5,075	3,816	1	1			32,844	28,314					40,216	33,860
1929			4,863	3,656			25	20	6,706	5,042			10	8	43,309	37,335	2	2			54,915	46,063
1930			3,395	2,553			100	80	3,674	2,762			50	41	27,154	23,409	5	4			34,378	28,849
1931			1,755	1,320					670	504	40	33			13,534	11,667					15,999	13,524
1932			162	121					132	99					629	542					923	762
1933			980	737			3	3	1,423	1,070					6,344	5,469					8,750	7,279
1934			2,522	1,896					3,720	2,797	5	4			15,843	13,658	12	10			22,102	18,365
Total	15	11	34,051	25,602	3,934	3,224	6,310	5,048	46,806	35,192	46	38	237	197	270,632	233,304	820	672			362,851	303,288
Average	1	1	3,405	2,560	393	323	631	505	4,681	3,519	5	4	24	20	27,063	23,330	82	67			36,285	30,329
SILVERBOW COUNTY																						
1925			20	15																	20	15
1926			160	120											75	65					235	185
1927			10	8																	10	8
1928			158	119																	158	119
1929																						
1930			258	194																	258	194
1931			98	74																	98	74
1932			60	45																	60	45
1933			75	56																	75	56
1934			94	71																	94	71
Total			933	702											75	65					1,008	762
Average			93	70											8	7					101	77
TOTALS																						
1925	757	569	71,445	53,716	2,916	2,391	9,915	7,932	133,539	100,405	11	9	5,094	4,245	156,905	135,253	2,000	1,639	10	8	382,592	306,177
1926	222	167	66,413	49,935	1,371	1,123	15,216	12,174	114,105	85,793	45	37	6,711	5,594	175,218	151,050	1,167	956	205	177	380,673	307,006
1927	1	1	78,114	58,754	8	7	12,757	10,805	126,693	95,258	73	61	5,744	4,787	165,226	142,434	841	689	60	52	389,517	312,228
1928			69,793	52,477	214	175	18,506	14,805	117,365	88,244	21	18	7,400	6,167	166,593	143,614	231	189	8	7	380,131	305,696
1929	40	30	70,002	52,633			21,679	17,343	105,008	78,953	924	770	15,973	13,310	167,125	144,071	92	76	5	4	380,848	307,190
1930			42,736	32,133			25,603	20,483	77,950	58,608	10	9	12,787	10,655	130,988	112,922	92	76			290,166	234,886
1931	37	28	27,642	20,784			17,857	14,285	41,708	31,359	67	57	2,742	2,285	62,635	53,996	21	17	5	4	152,714	122,815
1932			14,502	10,903			2,705	2,164	32,700	24,586	100	83	3,943	3,284	52,946	45,642	42	35	27	22	106,965	86,719
1933	20	14	11,649	8,757			4,701	3,761	24,629	18,520	35	28	8,564	7,137	70,673	60,925	105	86	2	2	120,378	99,230
1934			24,421	18,361			7,092	5,673	50,366	37,869	148	122	6,516	5,429	77,184	66,540	32	26	11	9	165,770	134,029
Total	1,077	809	476,717	358,433	4,509	3,696	136,031	108,825	824,063	619,595	1,434	1,194	75,474	62,893	1,225,493	1,056,457	4,623	3,789	333	285	2,749,754	2,215,976
Average	107	81	47,672	35,843	452	370	13,603	10,883	82,406	61,960	144	120	7,547	6,289	122,550	105,646	462	378	32	28	274,975	221,598

* Includes - Western Montana Logs Milled in Northern Idaho and Eastern Montana

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Table 5. SAWLOG PRODUCTION - EASTERN MONTANA °

County	Douglas Fir		Lodgepole Pine		Ponderosa Pine		Engelmann Spruce		White Fir		Cottonwood		Total	
	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale
AVERAGE ANNUAL PRODUCTION - BY COUNTIES Basis 10-year average 1925-1934 inclusive M. Board Feet														
Beaverhead	264	198	65	54			33	28					362	280
Bighorn					74	64							74	64
Blaine	41	31			130	112			2	1			173	144
Broadwater	168	126	45	37	7	5			4	4			224	172
Carbon	69	52	18	15			1	1					88	68
Carter	52	39	22	18	817	705					°°	°°	891	762
Cascade	21	16	°°	°°									21	16
Custer					4	3							4	3
Chouteau	2	1											2	1
Fergus	55	41	8	7	166	143	2	1	2	2			233	194
Gallatin	433	325	670	559	27	23	26	22	18	14	3	3	1,177	946
Glacier	19	14	23	19	10	9	304	253			°°	°°	356	295
Golden Valley	14	11			13	11							27	22
Hill	104	79			6	5							110	84
Jefferson	120	91	21	17	74	64	2	2	9	7	1	1	227	182
Judith Basin	11	9	8	7	12	10	4	3	1	1	°°	°°	36	30
Lewis & Clark	119	90	7	6	332	286	10	8	2	2			470	392
Madison	307	231	217	181	3	3	12	10					539	425
Meagher	89	67	°°	°°	4	3	5	4					98	74
Musselshell	33	24			49	43							82	67
Park	457	343	126	105	11	9	65	54	9	7	6	5	674	523
Phillips			16	13	51	44							67	57
Pondera	14	10	2	1			14	12			3	3	33	26
Powder River	26	20	15	13	314	270							355	303
Roosevelt											15	13	15	13
Rosebud	4	3			422	364					1	1	427	368
Stillwater			°°	°°	30	26	1	1					31	27
Sweetgrass	470	353	28	23	86	74	23	19			8	7	615	476
Teton	15	11	10	9	2	2	34	28					61	50
Treasure					7	6							7	6
Wheatland	17	13			10	9							27	22
Yellowstone					4	3							4	3
Eastern Montana	2,924	2,198	1,301	1,084	2,665	2,296	536	446	47	38	37	33	7,510	6,095
TOTAL ANNUAL PRODUCTION M. Board Feet														
Year														
1925	3,323	2,494	1,343	1,119	3,164	2,728	243	203	41	34			8,114	6,578
1926	3,362	2,529	1,969	1,642	2,420	2,085	405	336	65	54			8,221	6,646
1927	2,678	2,016	2,035	1,695	2,849	2,455	242	202	35	28			7,839	6,396
1928	3,789	2,850	1,821	1,518	2,864	2,467	348	290	19	16	74	64	8,915	7,205
1929	3,220	2,420	1,973	1,645	2,780	2,397	296	247	22	18	42	36	8,333	6,763
1930	3,341	2,513	891	741	3,251	2,802	632	526	20	16	19	17	8,154	6,615
1931	2,303	1,730	823	686	2,274	1,960	941	785	173	143	28	24	6,542	5,328
1932	1,794	1,349	483	403	2,328	2,006	606	506	2	2	17	14	5,230	4,280
1933	2,780	2,090	747	623	1,861	1,594	772	643	5	4	35	30	6,200	4,984
1934	2,653	1,993	928	772	2,860	2,466	875	729	84	69	154	132	7,554	6,161
Total	29,243	21,984	13,013	10,844	26,651	22,960	5,360	4,467	466	384	369	317	75,102	60,956
Average	2,924	2,198	1,301	1,084	2,665	2,296	536	446	47	38	37	33	7,510	6,095

° Does not include western Montana logs milled in eastern Montana.
°° Less than 1 M. feet.

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Table 6. SAWLOG PRODUCTION SOUTHERN IDAHO

County	Ponderosa Pine		Lodgepole Pine		Douglas Fir		Engelmann Spruce		White Fir		Hemlock		Larch		Cedar		Cottonwood		Total	
	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lumber Tally	Log Scale	Lbr. Tally	Log Scale	Lumber Tally	Log Scale	Lbr. Tal.	Log Scale	Lbr. Tally	Log Scale	Lumber Tally	Log Scale
AVERAGE ANNUAL PRODUCTION - BY COUNTIES Basis 10-year average 1925-1934 inclusive M. Board Feet																				
Ada					3	3													3	3
Adams	2,975	2,564			1,048	788	6	5	138	114	41	31	95	71			10	8	4,313	3,581
Bannock	24	20	39	33	488	367	36	30	22	18							2	2	611	470
Bear Lake	16	14	284	237	329	247	46	38	47	38							1	1	723	575
Blaine	1	1	16	13	315	237	12	10	1	1							52	45	397	307
Boise	42,149	36,335	20	17	4,317	3,246			24	19									46,510	39,617
Bonneville	11	9	66	55	190	144	11	9	5	4									283	221
Butte			②	②	64	48	②	②											64	48
Camas	4	3	2	2	112	84	4	4	1	1									123	94
Caribou	3	3	14	11	112	84	25	21	7	6									161	125
Cassia			9	8	71	53			7	5							3	3	90	69
Clark					255	192													255	192
Custer	6	6	9	7	362	272	16	14	1	1									394	300
Elmore	222	191			255	192	5	4											482	387
Franklin	1	1	67	56	88	66	24	19	20	17	1	1					6	5	207	165
Freemont	14	12	378	315	566	426	4	3							1	1	5	4	968	761
Gem	98	85			21	16	12	10	②	②									131	111
Idaho	2	2	5	4	35	26	4	3											46	35
Jefferson	4	4	3	2	15	11	2	2											24	19
Lemhi	348	299	17	15	221	166	33	27	1	1					②	②	3	2	623	510
Madison	1	1	42	34	86	65													129	100
Oneida	1	1			72	54			②	②							②	②	73	55
Owyhee					1	1													1	1
Payette	4	4			1	1			3	2							②	②	8	7
Power	3	3	②	②	88	66													91	69
Teton	2	2	32	27	156	117	9	8	②	②									199	154
Twin Falls			36	30	2	1											②	②	38	31
Valley	44,975	38,771	184	153	10,276	7,726	1,267	1,056	3,835	3,144			725	545					61,262	51,395
Washington	207	178			60	45			6	5									273	228
South Idaho	91,071	78,509	1,223	1,019	19,609	14,744	1,516	1,263	4,118	3,376	42	32	820	616	1	1	82	70	118,482	99,630
TOTAL ANNUAL PRODUCTION M. Board Feet																				
1925	138,837	119,687	308	257	40,867	30,729	1,170	974	4,984	4,086			1,166	877			3	3	187,335	156,613
1926	126,143	108,744	1,503	1,251	33,486	25,176	892	743	6,341	5,196			2,401	1,805			18	16	170,784	142,931
1927	102,620	88,464	867	725	24,285	18,260	2,081	1,736	5,631	4,616			835	628			13	11	136,332	114,440
1928	115,583	99,640	999	834	26,163	19,673	567	472	5,294	4,340			75	56			9	8	148,690	125,023
1929	120,203	103,623	3,353	2,792	19,824	14,906	895	744	8,391	6,877			1,571	1,181	4	3	1	1	154,242	130,127
1930	96,937	83,567	1,092	912	13,727	10,321	2,678	2,232	3,762	3,083			1,532	1,153			207	179	119,935	101,447
1931	68,062	58,674	807	670	9,424	7,086	3,125	2,605	2,022	1,657			314	236			123	106	83,877	71,034
1932	31,247	26,937	908	757	5,779	4,343	1,167	972	574	469			19	14			103	89	39,797	33,581
1933	36,311	31,302	1,031	860	9,837	7,395	423	354	3,053	2,503			207	155			142	122	51,004	42,691
1934	74,763	64,452	1,362	1,134	12,696	9,545	2,165	1,804	1,133	928	420	316	75	56	11	8	201	172	92,826	78,415
Total	910,706	785,090	12,230	10,192	196,088	147,434	15,163	12,636	41,185	33,755	420	316	8,195	6,161	15	11	820	707	1,184,822	996,302
Average	91,071	78,509	1,223	1,019	19,609	14,744	1,516	1,263	4,118	3,376	42	32	820	616	1	1	82	70	118,482	99,630

② Less than 1 M. feet.

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Northern Rocky Mountain Forest and Range Experiment Station, Missoula, Montana

Table 7 – ANNUAL SAWLOG PRODUCTION – SUMMARY SHEET

(M board feet)

Year	Cedar		Douglas fir		Hemlock		Idaho white pine		Larch		Lodgepole pine		Engelmann spruce		Ponderosa pine		White fir		Cottonwood		Total	
	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale	Lumber tally	Log scale
IDAHO 1/																						
1925	39,206	29,476	148,855	111,923	4,319	3,540	428,056	342,444	114,535	86,118	386	322	24,110	20,090	380,614	328,117	90,721	74,362	468	403	1,231,270	996,795
1926	24,596	18,493	108,131	81,299	3,949	3,239	387,818	310,255	76,638	57,620	4,222	3,516	17,808	14,840	319,996	275,859	62,740	51,423	221	191	1,006,119	816,733
1927	18,510	13,917	86,197	64,810	2,710	2,221	447,038	357,630	98,545	74,095	1,034	865	6,827	5,692	264,112	227,681	57,168	46,858	500	431	982,641	794,200
1928	13,568	10,201	120,073	90,282	3,143	2,576	456,888	365,510	82,844	62,289	1,021	852	8,173	6,810	274,507	236,645	71,794	58,848	225	194	1,032,236	834,207
1929	13,340	10,031	113,252	85,152	2,256	1,858	478,358	382,687	87,150	65,524	3,356	2,795	6,896	5,744	307,935	265,458	90,834	74,455	58	50	1,103,445	893,754
1930	7,221	5,429	61,640	46,345	369	302	473,164	378,531	57,128	42,955	1,119	934	8,083	6,736	223,526	192,695	50,354	41,274	657	567	883,261	715,768
1931	4,077	3,067	24,022	18,062	1,728	1,416	357,642	286,113	18,100	13,608	807	670	6,596	5,499	109,038	93,999	25,009	20,499	141	122	547,160	443,055
1932	729	548	16,197	12,177	286	235	196,674	157,339	10,827	8,139	944	788	2,085	1,738	50,970	43,937	3,449	2,825	135	117	282,296	227,843
1933	1,134	852	22,318	16,781	625	512	241,650	193,321	12,981	9,760	1,046	872	2,398	1,999	58,450	50,387	6,554	5,374	153	132	347,309	279,990
1934	1,517	1,142	38,848	29,206	10,950	8,947	305,996	244,796	16,743	12,588	1,375	1,145	3,459	2,880	125,597	108,275	7,151	5,860	201	172	511,837	415,011
Total	123,898	93,156	739,533	556,037	30,345	24,844	3,773,284	3,018,626	575,491	432,696	15,310	12,759	86,455	72,028	2,114,745	1,823,053	465,774	381,778	2,759	2,379	7,927,574	6,417,356
Average:	12,390	9,316	73,953	55,603	3,034	2,484	377,328	301,863	57,549	43,270	1,531	1,276	8,644	7,203	211,475	182,305	46,577	38,178	276	238	792,757	641,736
MONTANA 1/																						
1925	757	569	74,768	56,210	2,916	2,391	9,915	7,932	133,539	100,405	1,354	1,128	5,357	4,448	160,069	137,991	2,041	1,673	10	8	390,705	312,755
1926	222	167	69,775	52,464	1,371	1,123	15,216	12,174	114,105	85,793	2,014	1,679	7,116	5,930	177,638	153,135	1,232	1,010	205	177	388,894	313,652
1927	1	1	80,792	60,750	8	7	12,757	10,205	126,693	95,258	2,108	1,756	5,986	4,989	168,075	144,889	876	717	60	52	397,356	318,624
1928			73,582	55,327	214	175	18,506	14,805	117,365	88,244	1,842	1,536	7,748	6,457	169,457	146,081	250	205	82	71	389,046	312,901
1929	40	30	73,222	55,053			21,679	17,343	105,008	78,953	2,887	2,415	16,269	13,557	169,905	146,468	114	94	47	40	389,181	313,953
1930			46,077	34,646			25,603	20,483	77,950	58,608	901	750	13,419	11,181	134,239	115,724	112	92	19	17	298,320	241,501
1931	37	28	29,945	22,514			17,857	14,285	41,708	31,359	890	743	3,683	3,070	64,909	55,956	194	160	33	28	159,256	128,143
1932			16,296	12,252			2,705	2,164	32,700	24,586	583	486	4,549	3,790	55,274	47,648	44	37	44	36	112,195	90,999
1933	20	14	14,429	10,847			4,701	3,761	24,629	18,520	782	651	9,336	7,780	72,534	62,519	110	90	37	32	126,578	104,214
1934			27,074	20,354			7,092	5,673	50,366	37,869	1,076	894	7,391	6,158	80,044	69,006	116	95	165	141	173,324	140,190
Total	1,077	809	505,960	380,417	4,509	3,696	136,031	108,825	824,063	619,595	14,447	12,038	80,834	67,360	1,252,144	1,079,417	5,089	4,173	702	602	2,824,856	2,276,932
Average:	108	81	50,596	38,042	451	370	13,603	10,882	82,406	61,959	1,445	1,204	8,083	6,736	125,214	107,942	509	417	70	60	282,485	227,693
INLAND EMPIRE 2/																						
1925	40,898	30,748	204,893	154,053	7,425	6,087	478,736	382,988	266,473	200,356	89	74	33,063	27,552	532,300	458,881	92,773	76,042	478	411	1,657,128	1,357,192
1926	26,126	19,643	163,208	122,712	5,459	4,474	444,042	355,236	209,063	157,188	3,424	2,852	24,673	20,563	550,894	474,909	64,179	52,604	479	412	1,491,547	1,210,593
1927	20,112	15,122	160,039	120,331	2,936	2,407	512,295	409,836	255,730	192,279	240	201	12,478	10,400	474,533	409,978	62,454	51,190	550	475	1,501,367	1,211,319
1928	15,520	11,668	185,125	139,193	8,333	6,830	517,092	413,673	219,614	165,123	43	36	23,349	19,458	472,419	407,258	71,720	58,786	227	196	1,513,442	1,222,221
1929	15,046	11,313	198,725	149,417	2,415	1,980	532,296	425,837	210,336	158,146	927	773	26,163	21,801	508,298	438,183	99,175	81,293	100	86	1,593,481	1,288,829
1930	10,262	7,716	116,045	87,252	370	303	542,514	434,011	155,152	116,655	37	31	29,237	24,365	359,632	310,029	55,434	45,440	471	406	1,269,154	1,026,206
1931	5,911	4,446	49,541	37,249	1,774	1,454	414,338	331,470	78,574	59,077	67	57	6,787	5,657	162,616	140,187	36,997	30,325	26	23	756,631	609,945
1932	1,279	962	29,495	22,176	305	250	222,179	177,743	47,348	35,598	136	114	5,875	4,896	98,036	84,511	4,029	3,302	62	53	408,744	329,605
1933	4,328	3,253	29,671	22,309	1,027	841	292,523	234,019	41,300	31,055	50	40	12,122	10,100	129,156	111,340	6,677	5,475	32	27	516,886	418,459
1934	2,412	1,815	60,206	45,265	10,530	8,631	351,281	281,023	72,144	54,243	161	133	16,782	13,981	178,612	153,979	9,024	7,396	202	174	701,354	566,640
Total	141,894	106,686	1,196,948	899,957	40,574	33,257	4,307,296	3,445,836	1,555,734	1,169,720	5,174	4,311	190,589	158,771	3,466,496	2,988,355	502,462	411,853	2,627	2,263	11,409,734	9,221,009
Average:	14,189	10,669	119,695	89,996	4,057	3,326	430,730	344,584	155,573	116,972	517	431	19,053	15,877	346,650	298,835	50,246	41,185	263	226	1,140,973	922,101
NORTHERN ROCKY MOUNTAIN REGION 3/																						
1925	40,898	30,748	208,216	156,547	7,425	6,087	478,736	382,988	266,473	200,356	1,432	1,193	33,306	27,755	535,454	461,609	92,814	76,076	478	411	1,665,242	1,343,770
1926	26,126	19,643	166,570	125,241	5,459	4,474	444,042	355,236	209,063	157,188	5,393	4,494	25,078	20,899	553,314	476,994	64,244	52,658	479	412	1,499,768	1,217,239
1927	20,112	15,122	162,717	122,347	2,936	2,407	512,295	409,836	255,730	192,279	2,275	1,896	12,720	10,602	477,382	411,533	62,489	51,218	550	475	1,509,206	1,217,715
1928	15,520	11,668	188,914	142,043	8,333	6,830	517,092	413,673	219,614	165,123	1,864	1,554	23,697	19,748	475,283	409,725	71,739	58,802	301	260	1,522,357	1,229,426
1929	15,046	11,313	201,945	151,837	2,415	1,980	532,296	425,837	210,336	158,146	2,900	2,418	26,459	22,048	511,078	440,580	99,197	81,311	142	122	1,601,814	1,295,592
1930	10,262	7,716	119,386	89,765	370	303	542,514	434,011	155,152	116,655	928	772	29,869	24,889	362,883	312,831	55,454	45,456	490	423	1,277,308	1,032,821
1931	5,911	4,446	51,844	38,979	1,774	1,454	414,338	331,470	78,574	59,077	890	743	7,728	6,442	164,890	142,147	37,170	30,468	54	47	763,173	615,273
1932	1,279	962	31,289	23,525	305	250	222,179	177,743	47,348	35,598	619	517	6,481	5,402	100,364	86,517	4,031	3,304	79	67	413,974	333,885
1933	4,328	3,253	32,451	24,399	1,207	841	292,523	234,019	41,300	31,055	797	663	12,894	10,743	131,017	112,934	6,682	5,479	67	57	523,086	423,443
1934	2,412	1,815	62,859	47,258	10,530	8,631	351,281	281,023	72,144	54,243	1,089	905	17,657	14,710	181,472	156,445	9,108	7,465	356	306	708,908	572,801
Total	141,894	106,686	1,226,191	921,941	40,574	33,257	4,307,296	3,445,836	1,555,734	1,169,720	18,187	15,155	195,889	163,238	3,493,147	3,011,315	502,928	412,237	2,996	2,580	11,484,836	9,281,965
Average:	14,189	10,669	122,619	92,194	4,057	3,326	430,730	344,584	155,573	116,972	1,819	1,515	19,589	16,324	349,515	301,131	50,293	41,224	300	258	1,148,484	928,197

1/ Entire state
2/ Includes – Northern Idaho, western Montana and northeastern Washington
3/ Includes – northern Idaho, western Montana, eastern Montana and northeastern Washington

Table 8.- AVERAGE ANNUAL PRODUCTION OF SAWLOGS°

NORTHEASTERN WASHINGTON

County	Thousand board feet log scale										
	Cedar	D.fir	Hem-lock	I. W. pine	Larch	L. P. pine	Eng. spruce	Pond. pine	White fir	Cotton-wood	Total
Spokane	281	5451		6055	3375		187	28522	1916	6	45793
Stevens	136	4130	8	4289	3287		1007	48563	499	25	61944
Pend Oreille	856	3711	495	21494	5697	55	2455	12309	3589		50661
Total	1273	13292	503	31838	12359	55	3649	89394	6004	31	158398

°1925-1934 inclusive

Table 9.- NORTHERN IDAHO

Benewah	345	5485	7	35364	5623	1	472	20753	2976		71026
Bonner	4541	5755	2291	57699	7821	229	887	14204	4329		97756
Boundary	194	2301	64	5927	3094	2	280	8712	1783	1	22358
Clearwater	969	5416	24	80290	4026	6	570	8122	10940		110363
Idaho	1	341	1	5	55	11	23	1096	94		1627
Kootenai	942	9579	37	38616	9083		231	17121	6588	161	82358
Latah	1541	6159		29033	7192	8	513	13671	5831	3	63951
Lewis		913		16	1152			14400	3		16484
Nezperce		42		5	17		6	158	9		237
Shoshone	781	4870	29	54908	4591		2957	5559	2249	2	75946
Total	9314	40861	2453	301863	42654	257	5939	103796	34802	167	542106

°1925-1934 inclusive

Table 10 - AVERAGE ANNUAL PRODUCTION OF SAWLOGS°

WESTERN MONTANA

County	Thousand Board Feet Log Scale										
	Cedar	D. Fir	Hem-lock	I.W. Pine	Larch	L. P. Pine	Eng. Spruce	Pond. Pine	White Fir	Cotton-wood	Total
Deerlodge		42				25	2				69
Flathead	51	13593		3368	32518	8	5029	13106	236	8	67917
Granite		332			6	1	9	17			365
Lake		1313			1835	2	60	15548		1	18759
Lincoln	27	5676	47	6996	13648	76	1151	23440	57	19	51137
Mineral	2	420		9	761		13	2721			3926
Missoula		10632		3	9502	1		15942	4		36084
Powell		218		2	1		5	147	10		383
Ravalli		987			170	3		11388	4		12552
Sanders	1	2560	323	505	3519	4	20	23330	67		30329
Silverbow		70						7			77
Total	81	35843	370	10883	61960	120	6289	105646	378	28	221598

°1925-1934 inclusive.

Table 11 - AVERAGE ANNUAL PRODUCTION OF SAWLOGS°

EASTERN MONTANA

County	Thousand Board Feet Log Scale						
	D.Fir	L.P.Pine	E.Spruce	P.Pine	W.Fir	Cotton-wood	Total
Beaverhead	198	54	28				280
Bighorn				64			64
Blaine	31			112	1		144
Broadwater	126	37		5	4		172
Carbon	52	15	1				68
Carter	39	18		705			762
Cascade	16						16
Custer				3			3
Chouteau	1						1
Fergus	41	7	1	143	2		194
Gallatin	325	559	22	23	14	3	946
Glacier	14	19	253	9			295
Golden Valley	11			11			22
Hill	79			5			84
Jefferson	91	17	2	64	7	1	182
Judith Basin	9	7	3	10	1		30
Lewis & Clark	90	6	8	286	2		392
Madison	231	181	10	3			425
Meagher	67		4	3			74
Musselshell	24			43			67
Park	343	105	54	9	7	5	523
Phillips		13		44			57
Pondera	10	1	12			3	26
Powder River	20	13		270			303
Roosevelt						13	13
Rosebud	3			364		1	368
Stillwater			1	26			27
Sweetgrass	353	23	19	74		7	476
Teton	11	9	28	2			50
Treasure				6			6
Wheatland	13			9			22
Yellowstone				3			3
Total	2198	1084	446	2296	38	33	6095

°1925-1934 inclusive.

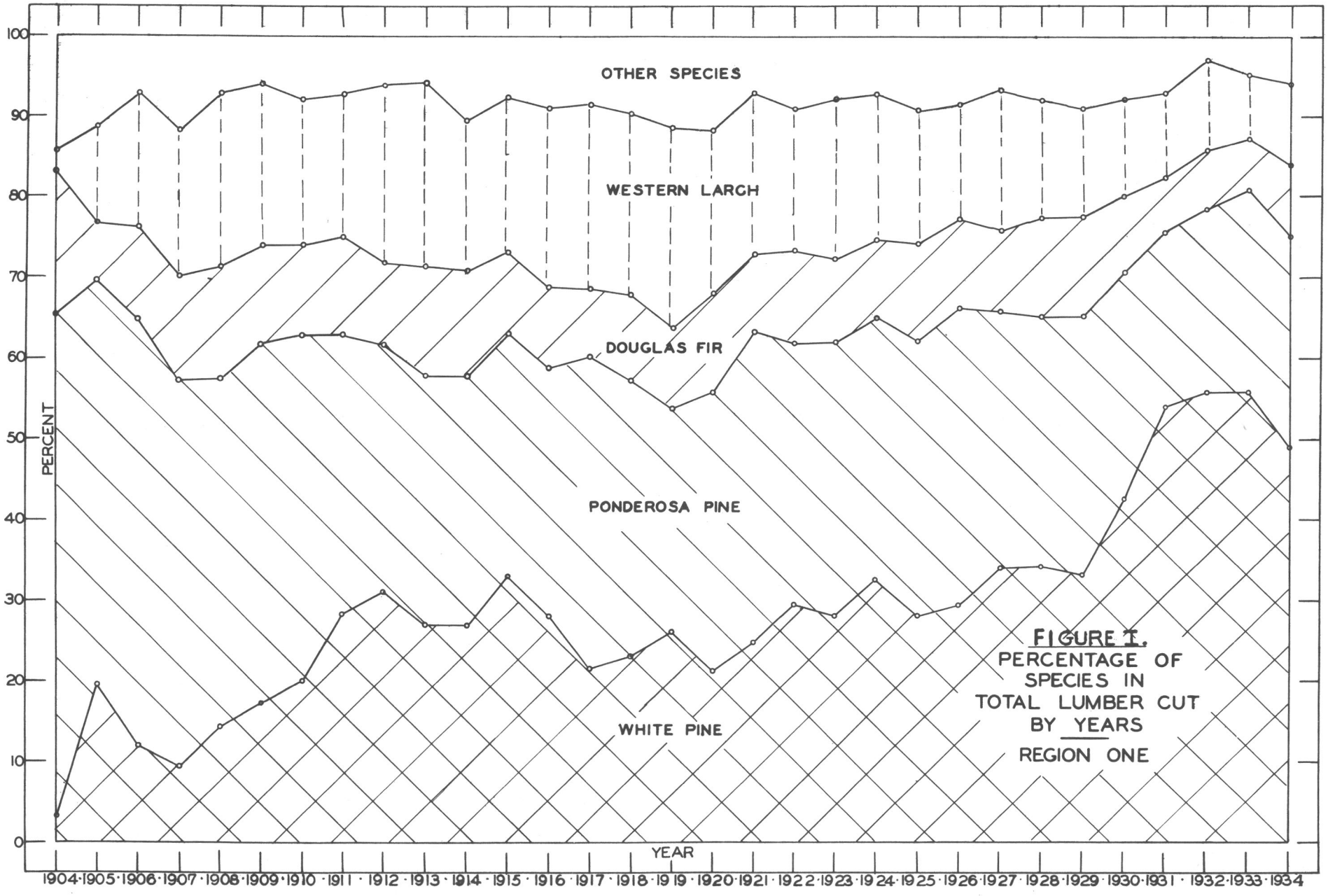

FIGURE I.
PERCENTAGE OF SPECIES IN TOTAL LUMBER CUT BY YEARS
REGION ONE

ceased operations or moved their logging to other sites. Further, there is the factor of the marked change in recent years of the proportion of the different species logged as influenced by demand. Figure One shows the large increase in percentage cut of white pine at the cost of other species. In forecasting future depletion, it will be necessary to weigh, for each management unit, these and other of the more permanent factors against such temporary variances as were caused by the depression. This complex condition is particularly evident in the forested Inland Empire and to a lesser extent in southern Idaho. The fluctuations in eastern Montana have been relatively small.

FUELWOOD°

Being second only to the sawlog, fuelwood is the leading minor timber product from the standpoint of volume in the Northern Rocky Mountain region. Each year nearly 632 million board feet of firewood are consumed in this area of which about one-half or 312 million feet represents drain from green timber. The balance is mainly dead-cut wood along with a small amount of slabwood. The proportion of green-cut wood to the total, varies throughout the Region. In the three eastern Washington

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°A more detailed study of the fuelwood consumption and production is described in the Office Report of February 1936, "Cutting Depletion and Requirements for Fuelwood in Region One," by S. Blair Hutchison.

counties, green-cut seasoned wood constitutes the bulk of the consumption and in northern Idaho, slightly more than half is from live timber, while in western and eastern Montana, the reverse is true, 31 percent and 42 percent respectively, being green-cut. The annual cutting depletion for green-cut fuelwood is recorded in Tables 12, 13, 14 and 15. Production figures covering both dead and green-cut firewood are contained in Tables 42, 43, 44, 45, 46, 47, 48 and 49.

With the exception of lodgepole, 80 percent or more of the green-cut wood is split from trees of sawtimber size. The reverse is true of the lodgepole, the bulk being from trees of less than sawtimber size. In general, for the sawtimber species, the cordwood comes from logged-over areas and is principally cut from trees in the lower brackets of the sawlog class and larger trees left because of inferior species or quality. Although many trees cut for cordwood are culls, from the standpoint of lumber production, because of crook, limbness, spike tops, etc., the majority are included in the volume estimates of the Forest Survey, which is not cruising for a special use. The drain figures for green-cut fuelwood are, therefore, directly applicable to inventory estimates.

These production tables are taken from the compilations of a five-months' fuel consumption survey, made during the summer of 1935 and involving a study of consumption in the majority of the towns as well as a personal canvass of 500 well-scattered farms in the Region. The data on green-cut depletion were split

Table 12 - AVERAGE ANNUAL PRODUCTION OF GREEN-CUT FUELWOOD

NORTHEASTERN WASHINGTON

County	Material From Trees of Sawtimber Size M Board Feet Log Scale					Material From Trees of Less Than Sawtimber Size Cubic Feet				
	D. Fir	Larch	P.Pine	Cotton-wood	Total	D. Fir	Larch	L.P.Pine	P.Pine	Total
Spokane	9,588	8,060	17,600		35,248	412,284	346,580	562,440		1,321,304
Stevens	10,662	11,056	7,865	640	30,223	458,466	475,408	147,060		1,080,934
Pend Oreille	2,164	1,997	77		4,238	93,052	85,828	55,298	3,440	237,618
Total	22,414	21,113	25,542	640	69,709	963,802	907,816	764,798	3,440	2,639,856

Table 13--AVERAGE ANNUAL PRODUCTION OF GREEN-CUT FUELWOOD

NORTHERN IDAHO

County	Material from trees of sawtimber size. Thousand board feet log scale.								Material from trees of less than sawtimber size. Cubic feet.						
	D. Fir	Hem-lock	I. W. Pine	Larch	Pond. Pine	White Fir	Cotton-wood	Total	Douglas Fir	Larch	L. P. Pine	Pond. Pine	Cotton-wood	Birch	Total
Benewah	1952			566	271		128	2917	83936	24338		2408	2494		113176
Bonner	5024	92		7951	581		1647	15295	216032	341850	219472	25026	31476	194790	1028646
Boundary	1524			1988			747	4259	65532	85484			14276	24080	189372
Clearwater	3940			36	3173			7149	169420	1548		28724			199692
Idaho	486			162	2840	405		3893	20898	6966	149640				177504
Kootenai	3618			3858	6108		162	13746	155574	165894	323360	55384	3096		703308
Latah	5236	1175		1422	5227			13060	225148	61146		47386			333680
Lewis	4188				3637			7825	180084						180084
Nezperce	1826			620	2548		459	5453	78518	26660			8772		113950
Shoshone	800	500	50	1118	4422			6890	34400	48074		40076			122550
Total	28594	1767	50	17721	28807	405	3143	80487	1229542	761960	692472	199004	60114	218870	3161962

Table 14 - AVERAGE ANNUAL PRODUCTION OF GREEN-CUT FUELWOOD

WESTERN MONTANA

County	Material From Trees of Sawtimber Size M Board Feet Log Scale						Material From Trees of Less Than Sawtimber Size Cubic Feet					
	D.Fir	Larch	L.P. Pine	Pond. Pine	Cotton-wood	Total	D. Fir	Larch	L.P. Pine	Pond. Pine	Cotton-wood	Total
Deerlodge					301	301					5848	5848
Flathead	4536	5715	1683	1683		13617	86688	109220	32164	32164		260236
Granite	898		387	113		1398	17114		7396	2064		26574
Lake	5767	286		389		6442	110166	5418		7482		123066
Lincoln	747	1130		1656		3533	14276	21500		31648		67424
Mineral				1233		1233				23564		23564
Missoula				5164	3643	8807				98642	69574	168216
Powell					468	468					8944	8944
Ravalli	68		27	1856	3145	5096	1204		516	35518	60200	97438
Sanders				1179		1179				22532		22532
Silverbow	113					113	2064					2064
Total	12129	7131	2097	13273	7557	42187	231512	136138	40076	253614	144566	805906

Table 15 - AVERAGE ANNUAL PRODUCTION OF GREEN-CUT FUELWOOD

EASTERN MONTANA

County	Material from trees of saw-timber size. M. Board Feet Log Scale.					Material from trees of less than saw-timber size. Cubic Feet.				
	D.Fir	L.P. Pine	Pond. Pine	Cotton-wood	Total	D. Fir	L. P. Pine	Pond. Pine	Cotton-wood	Total
Beaverhead	77				77	4386				4386
Bighorn				342	342				6536	6536
Blaine				490	490				9460	9460
Broadwater		35	609	81	725		24080	69832	1548	95460
Carbon			114	3307	3421			13072	63296	76368
Carter				189	189				3612	3612
Cascade		4		819	823		6192		15652	21844
Chouteau				553	553				10664	10664
Custer				171	171				3268	3268
Daniels				184	184				3612	3612
Dawson				220	220				4300	4300
Fallon				130	130				2580	2580
Fergus		137	2352	306	2795		94256	269696	5848	369800
Gallatin	1159	122	1914	8280	11475	66392	83936	219472	158240	528040
Garfield				216	216				4128	4128
Glacier				243	243				4644	4644
Golden Valley			33	931	964			3784	17888	21672
Hill				504	504				9632	9632
Jefferson		51	870	112	1033		35088	99760	2236	137084
Judith Basin				357	357				6880	6880
Lewis & Clark		56	975	126	1157		38528	111800	2408	152736
Liberty				166	166				3268	3268
McCone				216	216				4128	4128
Madison	776	78	1323	5720	7897	44548	53664	151704	109220	359136
Meagher		32	555	72	659		22016	63640	1376	87032
Musselshell			69	1957	2026			7912	37496	45408
Park	447	56	634	4117	5254	51256	38528	163572	78776	332132
Petroleum				103	103				2064	2064
Phillips				490	490				9460	9460
Pondera				315	315				6020	6020
Powder River				180	180				3440	3440
Prairie				139	139				2752	2752
Richland				301	301				5848	5848
Roosevelt				481	481				9288	9288
Rosebud				252	252				4816	4816
Sheridan				355	355				6880	6880
Stillwater	626	63	710	4608	6007	35948	43344	183180	88064	350536
Sweetgrass	300	30	510	2210	3050	17200	20640	58480	42140	138460
Teton				396	396				7568	7568
Toole				355	355				6880	6880
Treasure			16	657	673			4128	12556	16684
Valley				3550	3550				67940	67940
Wheatland			33	945	978			3784	18060	21844
Wibaux				117	117				2236	2236
Yellowstone			117	3595	3712			13416	68800	82216
Total	3385	664	10834	48858	63741	219730	460272	1437232	935508	3052742

by tree size on the basis of estimates by wood dealers and Forest Survey cruisers. The conversion factors of 500 board feet and 86 cubic feet per cord were used.

POLES AND PILING

The commercial pole and piling industry, centered in northern Idaho and Pend Oreille County, Washington, annually produces an average of 16 million linear feet of poles and piling totaling to 47 million board feet log scale. Approximately 94 percent of this output is pole material, which is practically all western red cedar, a very small portion of this volume being lodgepole pine from western and eastern Montana. The piling is cedar, larch and Douglas fir. A large volume of long fir and larch piling was shipped from Flathead County, Montana, in 1934. However, since this year was not included in the estimates, the abnormal demand had no effect upon the average annual cutting depletion for poles and piling shown in Tables 27, 28, 29 and 31. The record of average production in linear feet and board feet is contained in Tables 42, 43, 44, 45, 46, 47, 48, 49.

The cedar products are classified as coming from trees of less than sawtimber size, the 14-inch minimum limit being raised to include sound trees suitable for poles or piling. Most of the lodgepole pine poles fall in the lower class, whereas the bulk of the larch and fir piling is cut from trees of sawtimber size.

A census of pole and piling production is collected, biennially, by the Experiment Station in conjunction with the lumber census. The data for northern Idaho and Montana were taken from the census sheets for the years 1927, 1929, 1931 and 1933 and were supplemented by additional production data collected from a number of operators by personal interview. The figures for 1925, being incomplete, were not used. For the three Washington counties, a record of production for the year 1931, collected by Herman Johnson of the Pacific Northwest Experiment Station, was used, no census statistics being available. The four-year average for northern Idaho and Montana contains two good years from the standpoint of volume and two poor ones, the 1933 production having dropped to practically nothing. The northeastern Washington figures are based on one relatively poor year.

The following converting factors for poles and piling are based on size data from several sources. In the case of cedar poles, the size of the average piece was determined from reports by several large manufacturers, showing number of poles of each top diameter and length produced in 1933 and 1934. For the poles produced in eastern Montana and for piling, the figures used were calculated from much less detailed information but are, nevertheless, considered to be representative. West of the Continental Divide, the average pole is 35 feet long with an eight-inch top, a 12-inch butt and scales 2.86 board feet log scale per linear foot or .58 cubic feet per linear foot. The average piling, assumed to be 25 feet in length with a ten and one-fourth inch top and a 13-inch butt, scales four

board feet per linear foot or .76 cubic feet per linear foot. The average pole and piling for eastern Montana is 30 feet long with a seven-inch top, one linear foot equaling two board feet or .4 cubic feet.

FENCE POSTS AND FENCE POLES

The yearly depletion of fence-post material by counties, species and size of trees is recorded in Tables 16, 17, 18 and 19. Tables 42 to 49, inclusive, contain a record of production in terms of pieces and board feet. These compilations reveal a total of approximately 8,890,000 fence posts produced annually. With the exception of cedar, in general, the post material is cut for local use. The production of cedar is confined to the Inland Empire, the principal sources being Bonner County, Idaho, and Pend Oreille County, Washington. In addition to the Regional consumption, the annual exports of cedar posts total about a million pieces.

It is estimated that fully 50 percent of the cedar posts are cut from fire-killed timber and, furthermore, that 90 percent of the green-cut cedar posts are produced from trees of sawtimber size. Only a very few posts are split from the tops and butts left from pole operations. Posts from trees of other species are cut mainly from trees smaller than sawtimber size.

Two general sizes of fence posts were recognized. Six native species found in eastern Montana, (willow, aspen, juniper, ash, boxelder and elm), usually run to small diameters having an average volume of .5 cubic feet or 2.5 board feet per post.

Table 16 - AVERAGE ANNUAL PRODUCTION OF FENCE POSTS

NORTHEASTERN WASHINGTON

County	Posts From Trees of Sawtimber Size M.Ft.Log Scale	Posts Cut From Trees of Less Than Sawtimber Size Cubic Feet						
	Cedar°	Cedar°	D.Fir	Larch	P.Pine	L.P.Pine	Cotton-wood	Total
Spokane	10	246	2,041	4,406	54,648			61,341
Stevens	291	6,991	25,985	48,967				81,943
Pend Oreille	3,422	82,118		5,033				87,151
Total	3,723	89,355	28,026	58,406	54,648			230,435

Table 17 - NORTHERN IDAHO

Benewah	154	3,702						3,702
Bonner	1,990	47,766						47,766
Boundary	419	10,055		10,120				20,175
Clearwater	431	10,354	43,157					53,511
Idaho	165	3,956	87,815	171,148				262,919
Kootenai	213	5,105		18,479	12,388			35,972
Latah	409	9,810	14,753	25,661				50,224
Lewis			9,828					9,828
Nezperce			335					335
Shoshone	21	496						496
Total	3,802	91,244	155,888	225,408	12,388			484,928

Table 18 - WESTERN MONTANA

Deerlodge						29,473		29,473
Flathead	725	17,403	55,566	86,270				159,239
Granite						63,029		63,029
Lake	144	3,451		62,111	6,901			72,463
Lincoln	172	4,134	28,728	15,422				48,284
Mineral	31	754	562	1,512	475			3,305
Missoula			46,418	20,844	9,472			76,734
Powell						149,094		149,094
Ravalli			14,590	2,246	5,616	5,616	5,616	33,684
Sanders	937	22,493	4,968	16,135	45,922			89,518
Silverbow						27,961		27,961
Total	2,009	48,235	150,832	204,540	68,386	275,173	5,616	752,782

°This represents the production from green timber only.

Table 19—AVERAGE ANNUAL PRODUCTION OF FENCEPOSTS

EASTERN MONTANA

County	All Posts Cut From Trees of Less than Sawtimber Size Cubic Feet										
	D. Fir	P. Pine	L.P. Pine	Cotton-wood	Aspen	Juniper	Ash	Box-elder	Elm	Willow	Total
Beaverhead	41,558		9,893		21,070	915					73,436
Bighorn				34,700		36,145					70,845
Blaine				4,752						2,200	6,952
Broadwater	31,568	12,355		4,115							48,038
Carbon			77,695	105,937							183,632
Carter				25,920		27,005					52,925
Cascade	4,342		540							2,515	7,397
Chouteau	6,178		767							3,575	10,520
Custer				27,972		29,130					57,102
Daniels				11,232	1,560	1,040	4,680	520	520	22,890	42,442
Dawson				26,892		28,010					54,902
Fallon				18,252		19,010					37,262
Fergus	170,888	66,874		22,291							260,053
Gallatin	127,375	1,004		2,808		14,950					146,137
Garfield				29,365		30,590					59,955
Glacier	2,430		302							1,405	4,137
Golden Valley		106,283									106,283
Hill	4,730		594							2,735	8,059
Jefferson	24,278	9,504		3,164							36,946
Judith Basin	73,937	28,933		9,644							112,514
Lewis & Clark	12,398	50,242	2,614								65,254
Liberty	1,901		238							1,105	3,244
McCone				23,987		24,980					48,967
Madison	99,619	788		2,192		11,695					114,294
Meagher	53,957	21,114		7,042							82,113
Musselshell		139,396									139,396
Park	100,051	788		2,203		11,745					114,787
Petroleum	35,111	13,738		4,579							53,428
Phillips				5,767						2,670	8,437
Pondera	2,646		335							1,535	4,516
Powder River				28,134		29,310					57,444
Prairie				16,945		17,650					34,595
Richland				15,412	2,140	1,425	6,420	715	715	31,390	58,217
Roosevelt				14,332	1,990	1,330	5,975	665	665	29,200	54,157
Rosebud				32,681		34,045					66,726
Sheridan				16,675	2,315	1,545	6,950	770	770	33,975	63,000
Stillwater		63,094		28,231		24,595					115,920
Sweetgrass	87,534	691		1,933		10,275					100,433
Teton	3,445		432							1,995	5,872
Toole	2,462		302							1,425	4,189
Treasure				7,182		7,480					14,662
Valley				24,494	3,400	2,270	10,205	1,135	1,135	49,900	92,539
Wheatland	59,206	23,166		7,722							90,094
Wibaux				10,519		10,955					21,474
Yellowstone		204,671	11,210	33,642							249,523
Total	945,614	742,641	104,922	610,716	32,475	376,095	34,230	3,805	3,805	188,515	3,042,818

Table 20 - AVERAGE PRODUCTION OF FENCE POLES

EASTERN MONTANA

County	Cubic Feet		
	Lodgepole Pine	Ponderosa Pine	Total
Beaverhead	237,000		237,000
Bighorn		20,000	20,000
Blaine		32,000	32,000
Broadwater	10,000		10,000
Carbon	15,000		15,000
Carter		51,000	51,000
Cascade	21,000		21,000
Chouteau	25,000		25,000
Custer		29,000	29,000
Fergus	32,000		32,000
Gallatin	6,000		6,000
Glacier	15,000		15,000
Golden Valley	19,000		19,000
Jefferson	12,000		12,000
Judith Basin	22,000		22,000
Lewis and Clark	23,000		23,000
Madison	36,000		36,000
Meagher	17,000		17,000
Musselshell		13,000	13,000
Park	21,000		21,000
Petroleum		7,000	7,000
Phillips		35,000	35,000
Pondera	11,000		11,000
Powder River		52,000	52,000
Rosebud		35,000	35,000
Stillwater	25,000		25,000
Sweetgrass	38,000		38,000
Teton	20,000		20,000
Yellowstone	8,000		8,000
Total	613,000	274,000	887,000

The other species average 1.08 cubic feet or five board feet.

Throughout the Region there is a certain amount of small material cut for corral poles and fence poles. In eastern Montana, particularly in Beaverhead County with its great mileage of buck-pole fencing, there is a distinctly measurable use of such material. During the average year (Tables 20, 45 and 49), 887,000 pieces, principally lodgepole and totaling to 3.5 millon board feet, are used in construction and maintenance of pole fences and corrals. One average pole equals one cubic foot or four board feet.

These figures were derived from a special study of farm posts and pole requirements, the data for which were collected by a farm survey in conjunction with the fuelwood investigations.°

MINE TIMBERS AND CONVERTER POLES

The mining industry ranks among the larger users of forest products, annually consuming a total of approximately 20 million board feet of round mine timbers besides a large volume of sawed timbers and lumber. The mining operations of this Region can be divided in three main types, having decidedly different timber requirements. These are: Copper mining concentrated in and around Butte, Montana; coal mining scattered throughout eastern Montana, but with the principal scources in Carbon, Musselshell, Cascade, and Rosebud Counties; and thirdly the gold, silver, copper, zinc and lead mining of

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°Office Report - "Production and Consumption of Fence Posts in Montana, Northern Idaho and Northeastern Washington" - March 1936 by S. Blair Hutchison.

northern Idaho, centered in the famous Coeur d'Alene district of Shoshone County. Mixed minerals are also being mined in the Pend Oreille district in Washington; however, the industry here is mainly in the development stages and at the present time requires but a small amount of timbering. There is a small gold and silver district centered in the vicinity of Philipsburg, Montana. Some of the stull production for these mines is undoubtedly included in the production figures for the Butte district, leaving a relatively small unreported cut.

Montana Copper Mines

For the copper operations in and around Butte, the average stull, 16 feet by nine inches, scales 40 board feet or 8.3 cubic feet. Logged mainly in Missoula County, Douglas fir and western larch are the principal species, although lodgepole pine and ponderosa pine are also used. It is estimated that about 65 percent of the fir and larch, ten percent of the lodgepole and 100 percent of the ponderosa pine stulls are cut from sawtimber trees. The annual production of round mine timbers for this district totals to 9,641,000 board feet, the average cutting depletion by tree size being shown in Tables 21, 22 and 23. The production by pieces and board-foot volume is presented in Tables 44, 45, 48 and 49.

About 659 thousand board feet of converter poles are consumed annually in the Great Falls smelter. These so-called poles are, in reality, small logs averaging 90 board feet log scale, and are mainly larch and Douglas fir from Flathead and Lincoln Counties.

The converter poles used in conjunction with the refining operations at the Anaconda smelter are lodgepole pine of considerably smaller dimensions, scaling 15 board feet or 3.69 cubic feet. Deerlodge County is the source of the 578 thousand board feet produced yearly for use in this plant. The average cutting depletion for converter poles is given in Table 29 and the production by pieces and volume in Tables 44 and 48.

The minor timber products censuses for 1927, 1929, 1931 and 1933 are the source of these stull production tabulations. The census records for 1929, 1931 and 1933 were used in the case of the converter poles for the Great Falls smelter, and the company reports for the same years offered the best source of information for the Anaconda smelter. Two of the four years included in the stull production averages, 1927 and 1929, were years of heavy ore production and correspondingly high timber consumption. However, in 1931 and 1933 ore output suffered a severe slump, dropping in 1933 to about one-sixth of the 1929 figure.

The conversion ratios were computed by C. N. Whitney from a ten-year production record of the Anaconda Copper Mining Company.

Montana Coal Mines

The eastern portion of Montana is dotted with coal mines ranging in size from the large commercial concerns down to the innumerable small private wagon mines. As previously mentioned,

the bulk of the coal tonnage is mined in Carbon, Musselshell, Cascade and Rosebud Counties, the tonnage from the latter county being removed from an open pit mine and consequently not requiring the use of timbers. The other coal mines, however, yearly require about 102,200 mine props, totaling 1,022 M board feet log scale (Tables 22, 23, 44, 45, 48 and 49). The props, cut mainly from lodgepole pine and ponderosa pine trees of less than sawtimber size, are much smaller than the copper mine stulls, being 12 feet long with a six-inch top and scaling ten board feet or 2.6 cubic feet per piece. These converting factors were calculated from considerable data on prop production collected from the mines and from reports by Mr. Whitney.°

The census records on coal props being incomplete, the production tabulations were determined indirectly by a special study. From statistics furnished by some of the larger mines, the average consumption ratio of .92 linear feet of mine props per ton of coal produced was computed, which figure was applied to the coal production records for the years 1932 and 1933 as reported by the Montana State Board of Equalization.

It is interesting to note that the coal prop consumption dropped from 1,341,673 cubic feet in 1923 to 269,944 cubic feet in 1933. This drop is accounted for in a decline of nearly one-third in coal consumption, the development of the huge open-pit Colstrip mine producing almost one-third of Montana's coal, and in a lower ratio between tonnage and round mine timber use.

°Memorandum on "Market for Coal Props and Mine Ties at Roundup, Montana," by C. N. Whitney - July 28, 1925.
Memorandum on "Timber Market at Red Lodge, Montana," by C. N. Whitney - August 1, 1925.

The coal consumption decline has resulted from the development of natural gas and the effect of the depression.

Northern Idaho Metal Mines

Annually, approximately two million linear feet of round mine timbers, scaling to 7,513,000 board feet are consumed in northern Idaho, the bulk of these being used in the Coeur d' Alene region. The stulls as required in this locality are much larger than those cut in Montana, the average piece being 19 feet long with a ten-inch top and containing 70 board feet log scale or 12.54 cubic feet.°

Approximately 95 percent of the fir and larch stulls, which constitute the bulk of the production, are from sawtimber size trees. The same percentage holds true for the other species, except ponderosa pine, all the stulls of which are cut from trees in the larger-size class.

The cutting depletion for round mine timbers is shown in Table 21, while the linear footage and volume of production in board feet are contained in Tables 43 and 47, respectively. These tabulations which include the timber used in developing mines were compiled upon a consumption basis. The census of production figures being incomplete, the ratio between ore output and timber use was determined from basic data collected

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°Office Report - "The Stull Industry of the Coeur d'Alene District," by Phillip Neff and S. V. Fullaway, October, 1922.

Table 21 - AVERAGE ANNUAL PRODUCTION° OF ROUND MINE TIMBERS

NORTHERN IDAHO

County	Material Cut From Trees of Sawtimber Size M Board Feet Log Scale						Material Cut From Trees of Less Than Sawtimber Size - Cubic Feet			
	Douglas Fir	Hemlock	Larch	Spruce	Pond. Pine	Total	Douglas Fir	Hemlock	Larch	Total
Bonner	28	8	22		2	60	261	80	205	546
Boundary			1	2	4	7				
Idaho	14	5			3	22				
Kootenai	1,794	35	1,484		145	3,458	16,938	326	14,006	31,270
Shoshone	1,868	36	1,544		151	3,599	17,629	339	14,578	32,546
Total	3,704	84	3,051	2	305	7,146	34,828	745	28,789	64,362

Table 22 - WESTERN MONTANA

County	Material Cut From Trees of Sawtimber Size - M Board Feet Log Scale					Material Cut From Trees of Less Than Sawtimber Size - Cubic Feet				
	Stulls					Stulls				Props
	Douglas Fir	Larch	Lodgepole Pine	Ponderosa Pine	Total	Douglas Fir	Larch	Lodgepole Pine	Total	Lodgepole Pine
Deerlodge			54		54			100,289	100,289	307
Granite	20				20	11,257			11,257	
Missoula	3,089	1,808		325	5,222	345,039	202,005		547,044	
Powell			29		29			54,466	54,466	52,945
Sanders				244	244					
Silverbow			28		28			51,779	51,779	
Total	3,109	1,808	111	569	5,597	356,296	202,005	206,534	764,835	53,252

°Table 21 - 1928-1932 inclusive
°Table 22 - 1927-1929-1931-1933

Table 23 - AVERAGE ANNUAL PRODUCTION OF ROUND MINE TIMBERS

EASTERN MONTANA

County	Material Cut From Trees of Sawtimber Size M. Bd.Ft.Log Scale	Material Cut From Trees of Less Than Sawtimber Size Cubic Feet				
		Stulls°	Mine Props°°			
	Stulls° Lodgepole Pine	Lodgepole Pine	Douglas Fir	Lodgepole Pine	Ponderosa Pine	Total
Beaverhead	3	5,602				
Blaine					1,837	1,837
Carbon				22,182		22,182
Cascade				63,111		63,111
Chouteau				350		350
Fergus			406		202	608
Golden Valley					344	344
Jefferson	32	59,743				
Judith Basin		415			431	431
Madison	1	1,644				
Musselshell					126,992	126,992
Park				129		129
Pondera				410		410
Powder River					180	180
Stillwater				118		118
Total	36	67,404	406	86,300	129,986	216,692

°1927-1929-1931-1933
°°1932-1933

in a special mine timber census taken in 1923. This analysis reveals a ratio of 1.28 to 1 between linear feet of round stulls used and each ton of ore mined. Application was made of this figure to the average annual ore production by counties for the period 1928 to 1932, inclusive, necessary corrections as to source of material being made according to Minor Timber Products census information. During the last two years of the period, the ore production had slumped to the point where it was little more than half of the average production for the previous three years, 1928 to 1930. This drop has naturally been reflected in the timber consumption, perhaps making the five-year average too low to portray usual conditions.

PULPWOOD

The pulpwood industry for the Region is represented by the Inland Empire Paper Co., the sole purchasers and users of pulp logs. This plant obtains its logs from numerous small operators scattered through western Montana, northern Idaho and northeastern Washington, wherever spruce, white fir and hemlock are to be found. The tabulations of cutting depletion in Tables 24, 25 and 26 and the data on production in Tables 42, 43, 44, 46, 47 and 48 are taken from a detailed record of purchases by the company for the years 1927 to 1934, inclusive. This eight-year period includes five good years and three poor years with the annual production dropping from a high of 47 thousand cords in 1929 and 1930 to 22 thousand in 1933.

The conversion factor of two cords per thousand board feet log scale was used.

Table 24 - AVERAGE ANNUAL PRODUCTION OF PULPWOOD[8]

NORTHEASTERN WASHINGTON

County	Thousand Board Feet Log Scale			
	Hemlock	Engelmann Spruce	White Fir	Total
Spokane		2	2,252	2,254
Stevens		1,398	1,624	3,022
Pend Oreille	11	309	873	1,193
Total	11	1,709	4,749	6,469

Table 25 - NORTHERN IDAHO

Benewah		394	2,109	2,503
Bonner	151	294	1,413	1,858
Boundary	94	835	1,592	2,521
Clearwater		26	693	719
Kootenai		444	1,621	2,065
Latah			417	417
Shoshone			114	114
Total	245	1,993	7,959	10,197

Table 26 - WESTERN MONTANA

Flathead		857	90	947
Lincoln		316	364	680
Sanders		57	24	81
Total		1,230	478	1,708

[8]1927-1934 inclusive

HEWED TIES

When compared with estimates of ten years ago, given in the Montana and Idaho Forest and Timber Handbooks, the hewed tie production shows a marked decline in volume largely due to increased use of sawed ties.

Approximately nine million board feet of timber are represented in the 232 thousand hewed ties produced during the average year within the Region. Northeastern Washington leads in volume with a total of 5,329,000 board feet, all from Stevens County, followed by eastern and western Montana with totals of 1,763,000 and 1,563,000 board feet respectively, North Idaho being least with a production of only 628,000 board feet. (Tables 27, 28, 30, 31, 42, 43, 44, 45, 46, 47, 48, 49). Douglas fir and larch are the principal species used, although the bulk of the eastern Montana cut consists of lodgepole pine. It is estimated that 75 percent of the trees from the first two species are logged from sawtimber trees, whereas 90 percent of the lodgepole production falls in this class.

The statistics for Montana and Idaho were derived from the minor timber products census for the years 1927, 1929, 1931 and 1933 and for Washington from a special report by the Great Northern Railway for the year 1934. The break-downs by tree sizes were made from empirical data in both cases. As with practically all of the other timber products, the production of hewed ties dropped off sharply during the depression with the result that the average as set up includes two good

Table 27 - AVERAGE ANNUAL PRODUCTION OF SHINGLES, HEWED TIES, POLES AND PILING

NORTHEASTERN WASHINGTON

County	Material Cut From Trees of Sawtimber Size				Material Cut From Trees of Less Than Sawtimber Size						
	Shingle° Bolts. M.Bd.Ft. Log Scale	Hewed Ties°° M. Bd. Ft. Log Scale			Hewed Ties°° Cubic Feet			Poles°°° Cubic Ft.	Piling°°° Cubic Feet		
	Cedar	Douglas Fir	Larch	Total	Douglas Fir	Larch	Total	Cedar	Cedar	Larch	Total
Spokane								4,437	4,953		4,955
Stevens	149	2,078	1,918	3,996	60,620	55,965	116,585	457,762			
Pend Oreille	43							1,746,740	252,442	1,216	253,658
Total	192	2,078	1,918	3,996	60,620	55,965	116,585	2,208,939	257,397	1,216	258,613

Table 28 - NORTHERN IDAHO

County	Material Cut From Trees of Sawtimber Size M Board Feet Log Scale							Material Cut From Trees of Less Than Sawtimber Size - Cubic Feet				
	Shingles Bolts°	Hewed Ties°°			Piling°°			Hewed Ties°°			Poles°°	Piling°°
	Cedar	Douglas Fir	Larch	Total	Douglas Fir	Larch	Total	Douglas Fir	Larch	Total	Cedar	Cedar
Benewah	159										713,316	5,812
Bonner	423	68	71	139	89	134	223	1,974	2,086	4,060	1,478,490	50,015
Boundary		50	93	143	14	20	34	1,463	2,705	4,168	1,548,763	106,427
Clearwater	5	113	76	189				3,308	2,205	5,513	1,682,337	3,917
Idaho	4										181,086	
Kootenai	956										125,875	
Latah											208,319	
Shoshone											118,130	
Total	1,547	231	240	471	103	154	257	6,745	6,996	13,741	6,056,316	166,171

Table 27 - °1925-1934 inclusive; °°1934; °°°1930.

Table 28 - °1925-1934 inclusive; °°1927-1929-1931-1933.

Table 29 - AVERAGE ANNUAL PRODUCTION OF SHINGLES, POLES, PILING AND CONVERTER POLES

WESTERN MONTANA

County	Material Cut From Trees of Sawtimber Size M Board Feet Log Scale								Material Cut From Trees of Less Than Sawtimber Size Cubic Feet				
	Shingle[1] Bolts	Piling[2]			Converter Poles[3]				Poles[2]			Piling[2]	Converter Poles[3]
	Cedar	Douglas Fir	Larch	Total	Douglas Fir	Larch	Pond-erosa Pine	Total	Cedar	Lodge-pole Pine	Total	Cedar	Lodgepole Pine
Deerlodge													142,142
Flathead	8	22	51	73	25	57	14	96	256,442	92,618	349,060		
Lake	50								18,300		18,300		
Lincoln	1	58	137	195	143	335	85	563	288,757		288,757	19,584	
Ravalli	1												
Sanders	4	1	1	2					38,859		38,859		
Total	64	81	189	270	168	392	99	659	602,358	92,618	694,976	19,584	142,142

1/ 1925-1934 inclusive
2/ 1927-1929-1931-1933
3/ 1929-1931-1933

Table 30 - AVERAGE ANNUAL PRODUCTION° OF HEWED TIES

WESTERN MONTANA

County	Material Cut From Trees of Sawtimber Size M Board Feet Log Scale			Material Cut From Trees of Less Than Sawtimber Size Cubic Feet		
	Douglas Fir	Larch	Total	Douglas Fir	Larch	Total
Flathead	67	156	223	1,950	4,550	6,500
Granite	194		194	5,775		5,775
Lincoln	98	229	327	2,863	6,685	9,548
Powell	11		11	329		329
Sanders	166	250	416	4,854	7,284	12,138
Total	536	635	1,171	15,771	18,519	34,290

°1927-1929-1931-1933

Table 31 - AVERAGE ANNUAL PRODUCTION OF HEWED TIES, SHINGLES AND POLES AND PILING

EASTERN MONTANA

County	Material Cut From Trees of Sawtimber Size M Board Feet Log Scale						Material Cut From Trees of Less Than Sawtimber Size Cubic Feet			
	Hewed Ties°			Shingle Bolts°°			Hewed Ties°			Poles & Piling°
	Douglas Fir	Lodge-pole Pine	Total	Lodge-pole Pine	Pond-erosa Pine	Total	Douglas Fir	Lodge-pole Pine	Total	Lodge-pole Pine
Blaine										96
Broadwater				5		5				
Cascade										408
Fergus					4	4				
Gallatin		1,497	1,497	3		3		14,553	14,553	1,764
Hill					2	2				
Jefferson					1	1				
Lewis & Clark					1	1				
Meagher	53		53		1	1	1,533		1,533	
Park	22		22				658		658	144
Rosebud										300
Sweetgrass										1,344
Total	75	1,497	1,572	8	9	17	2,191	14,553	16,744	4,056

°1927-1929-1931-1933
°°1925-1934 inclusive

and two poor years. One large outfit operating in Gallatin County has produced the majority of the eastern Montana hewed ties in the past ten years. This company ceased activity in 1931, and the production since then for eastern Montana has been very small.

The converting factors used were 40 board feet or 3.5 cubic feet per piece.

SHINGLES

Least of the major timber products the census shows an average annual production for the ten years from 1925 to 1934 of approximately 1,820,000 board feet of shingle material. This production, all from sawtimber trees, is entirely of cedar in the Inland Empire region, lodgepole pine and ponderosa pine being the principal species used in eastern Montana (Tables 27, 28, 29, 31, 42, 43, 44, 45, 46, 47, 48, 49).

The following converting factors were used:

800 pieces = one square

9 squares = 1,000 board feet log scale.

SUMMARY TABLES

In Tables 32, 33, 34, and 35, the previous depletion tables are summarized, showing the average annual cutting depletion for all timber products by species and tree size. Tables 36, 37, 38 and 39 show the total cutting depletion by products and tree size. In Tables 40 and 41 this information is summarized by species and products for the entire Region in board feet log scale without regard to tree size. It is interesting to note that the average annual regional cutting depletion from the green timber resources totals 1,370,654,000 board feet log scale.

To facilitate the use of this information for purposes where the production rather than the cutting depletion by tree size is needed, these data are again summarized in Tables 42, 43, 44 and 45 which present the average annual production of all minor timber products by pieces, linear feet or the other common unit of measure most used for each class of material.

This same information is tabulated by board-foot volume log scale in Tables 46, 47, 48, 49. Finally, the converting ratios for the various timber products have been assembled in Table 50.

Table 32 - AVERAGE ANNUAL CUTTING DEPLETION° - ALL TIMBER PRODUCTS

NORTHEASTERN WASHINGTON
(By Species and Tree Size)

County	Cedar	Douglas Fir	Hemlock	I. W. Pine	Larch	L. P. Pine	Spruce	Pond. Pine	White Fir	Cotton-wood	Total
Material From Trees of Sawtimber Size Thousand Board Feet - Log Scale											
Spokane	291	15,039		6,055	11,435		189	46,122	4,168	6	83,305
Stevens	576	16,870	8	4,289	16,261		2,405	56,428	2,123	665	99,625
Pend Oreille	4,321	5,875	506	21,494	7,694	55	2,764	12,386	4,462		59,557
Total	5,188	37,784	514	31,838	35,390	55	5,358	114,936	10,753	671	242,487
Material From Trees of Less Than Sawtimber Size Cubic Feet											
Spokane	9,638	414,325			350,986	562,440		54,648			1,392,037
Stevens	464,753	545,071			580,340	147,060					1,737,224
Pend Oreille	2,081,300	93,052			92,077	55,298		3,440			2,325,167
Total	2,555,691	1,052,448			1,023,403	764,798		58,088			5,454,428

°Includes green-cut timber only.

RE-NRM
Forest Survey

Table 33 - AVERAGE ANNUAL CUTTING DEPLETION° - ALL TIMBER PRODUCTS

NORTHERN IDAHO

(By species and tree size)

County	Material cut from trees of sawtimber size. M board feet log scale											Material cut from trees of less than sawtimber size. Cubic feet							
	Cedar	D. Fir	Hemlock	I.W. Pine	Larch	L.P. Pine	E. Spruce	P. Pine	W. Fir	Cotton-wood	Total	Cedar	D. Fir	Hemlock	Larch	L.P. Pine	P. Pine	Cotton-wood	Birch	Total
Benewah	658	7,437	7	35,364	6,189	1	866	21,024	5,085	128	76,759	722,830	83,936		24,338		2,408	2,494		836,006
Bonner	6,954	10,964	2,542	57,699	15,999	229	1,181	14,787	5,742	1,647	117,744	1,576,271	218,267	80	344,141	219,472	25,026	31,476	194,790	2,609,523
Boundary	613	3,889	158	5,927	5,196	2	1,117	8,716	3,375	748	29,741	1,665,245	66,995		98,309			14,276	24,080	1,868,905
Clearwater	1,405	9,469	24	80,290	4,138	6	596	11,295	11,633		118,856	1,696,608	215,885		3,753		28,724			1,944,970
Idaho	170	841	6	5	217	11	23	3,939	499		5,711	185,042	108,713		178,114	149,640				621,509
Kootenai	2,111	14,991	72	38,616	14,425		675	23,374	8,209	323	102,796	130,980	172,512	326	198,379	323,360	67,772	3,096		896,425
Latah	1,950	11,395	1,175	29,033	8,614	8	513	18,898	6,248	3	77,837	218,129	239,901		86,807		47,386			592,223
Lewis		5,101		16	1,152			18,037	3		24,309		189,912							189,912
Nezperce		1,868		5	637		6	2,706	9	459	5,690		78,853		26,660			8,772		114,285
Shoshone	802	7,538	565	54,958	7,253		2,957	10,132	2,363	2	86,570	118,626	52,029	339	62,652		40,076			273,722
Total	14,663	73,493	4,549	301,913	63,820	257	7,934	132,908	43,166	3,310	646,013	6,313,731	1,427,003	745	1,023,153	692,472	211,392	60,114	218,870	9,947,480

° Includes greencut timber only.

Table 34 AVERAGE ANNUAL CUTTING DEPLETION ° - ALL TIMBER PRODUCTS

WESTERN MONTANA

(By species and tree size)

County	Material from trees of sawtimber size. M board feet log scale											Material from trees of less than sawtimber size. Cubic feet						
	Cedar	D. Fir	Hemlock	I.W.Pine	Larch	L.P.Pine	E.Spruce	P. Pine	W.Fir	Cottonwood	Total	Cedar	D. Fir	L.P.Pine	P. Pine	Cottonwood	Larch	Total
Deerlodge		42				79	2			301	424			272,211		5,848		278,059
Flathead	784	18,243		3,368	38,497	1,691	5,886	14,803	326	8	83,606	273,845	144,204	124,782	32,164		200,040	775,035
Granite		1,444			6	388	9	130			1,977		34,146	70,425	2,064			106,635
Lake	194	7,080			2,121	2	60	15,937		1	25,395	21,751	110,166		14,383		67,529	213,829
Lincoln	200	6,722	47	6,996	15,479	76	1,467	25,181	421	19	56,608	312,475	45,867		31,648		43,607	433,597
Mineral	33	420		9	761		13	3,954			5,190	754	562		24,039		1,512	26,867
Missoula		13,721		3	11,310	1		21,431	4	3,643	50,113		391,457		108,114	69,574	222,849	791,994
Powell		229		2	1	29	5	147	10	468	891		329	256,505		8,944		265,778
Ravalli	1	1,055			170	30		13,244	4	3,145	17,649		15,794	6,132	41,134	65,816	2,246	131,122
Sanders	942	2,727	323	505	3,770	4	77	24,753	91		33,192	61,352	9,822		68,454		23,419	163,047
Silverbow		183				28		7			218		2,064	79,740				81,804
Total	2,154	51,866	370	10,883	72,115	2,328	7,519	119,587	856	7,585	275,263	670,177	754,411	809,795	322,000	150,182	561,202	3,267,767

° Includes greencut timber only.

Table35 AVERAGE ANNUAL CUTTING DEPLETION * - ALL TIMBER PRODUCTS

EASTERN MONTANA

(By species and tree size)

County	Material from trees of sawtimber size. M. board feet log scale.							Material from trees of less than sawtimber size. Cubic feet.									
	D.Fir	L.P.Pine	E. Spruce	P. Pine	Wh.Fir	Cottonwood	Total	Douglas Fir	L. P. Pine	Pond. Pine	Cottonwood	Aspen	Juniper	Ash	Box-Elder	Elm	Willow	Total
Beaverhead	275	57	28				360	45,944	252,495			21,070	915					320,424
Bighorn				64		342	406			20,000	41,236		36,145					97,381
Blaine	31			112	1	490	634		96	33,837	14,212						2,200	50,345
Broadwater	126	77		614	4	81	902	31,568	34,080	82,187	5,663							153,498
Carbon	52	15	1	114		3,307	3,489		114,877	13,072	169,233							297,182
Carter	39	18		705		189	951			51,000	29,532		27,005					107,537
Cascade	16	4				819	839	4,342	91,251		15,652						2,515	113,760
Chouteau	1					553	554	6,178	26,117		10,664						3,575	46,534
Custer				3		171	174			29,000	31,240		29,130					89,370
Daniels						184	184				14,844	1,560	1,040	4,680	520		22,890	46,054
Dawson						220	220				31,192		28,010					59,202
Fallon						130	130				20,832		19,010					39,842
Fergus	41	144	1	2,499	2	306	2,993	171,294	126,256	336,772	28,139							662,461
Gallatin	1,484	2,181	22	1,937	14	8,283	13,921	193,767	106,253	220,476	161,048		14,950					696,494
Garfield						216	216				33,493		30,590					64,083
Glacier	14	19	253	9		243	538	2,430	15,302		4,644						1,405	23,781
Golden Valley	11			44		931	986		19,000	110,411	17,888							147,299
Hill	79			7		504	590	4,730	594		9,632						2,735	17,691
Jefferson	91	100	2	935	7	113	1,248	24,278	106,831	109,264	5,400							245,773
Judith Basin	9	7	3	10	1	357	387	73,937	22,415	29,364	16,524							142,240
Lewis & Clark	90	62	8	1,262	2	126	1,550	12,398	64,142	162,042	2,408							240,990
Liberty						166	166	1,901	238		3,268						1,105	6,512
McCone						216	216				28,115		24,980					53,095
Madison	1,007	260	10	1,326		5,720	8,323	144,167	91,308	152,492	111,412		11,695					511,074
Meagher	120	32	4	559		72	787	55,490	39,016	84,754	8,418							187,678
Musselshell	24			112		1,957	2,093			287,300	37,496							324,796
Park	812	161	54	643	7	4,122	5,799	151,965	59,801	164,360	80,979		11,745					468,850
Petroleum						103	103	35,111		20,738	6,643							62,492
Phillips		13		44		490	547			35,000	15,227						2,670	52,897
Pondera	10	1	12			318	341	2,646	11,745		6,020						1,535	21,946
Powder River	20	13		270		180	483			52,180	31,574		29,310					113,064
Prairie						139	139				19,697		17,550					37,347
Richland						301	301				21,260	2,140	1,425	6,420	715	715	31,390	64,065
Roosevelt						494	494				23,620	1,990	1,330	5,975	665	665	29,200	63,445
Rosebud	3			364		253	620		300	35,000	37,497		34,045					106,842
Sheridan						355	355				23,555	2,315	1,545	6,950	770	770	33,975	69,880
Stillwater	626	63	1	736		4,608	6,034	35,948	68,462	246,274	116,295		24,595					491,574
Sweetgrass	653	53	19	584		2,217	3,526	104,734	59,984	59,171	44,073		10,275					278,237
Teton	11	9	28	2		396	446	3,445	20,432		7,568						1,995	33,440
Toole						355	355	2,462	302		6,880						1,425	11,069
Treasure				22		657	679			4,128	19,738		7,480					31,346
Valley						3,550	3,550				92,434	3,400	2,270	10,205	1,135	1,135	49,900	160,479
Wheatland	13			42		945	1,000	59,206		26,950	25,782							111,938
Wibaux						117	117				12,755		10,955					23,710
Yellowstone				120		3,595	3,715		19,210	218,087	102,442							339,739
Total	5,658	3,289	446	13,139	38	48,891	71,461	1,167,941	1,350,507	2,583,859	1,546,224	32,475	376,095	34,230	3,805	3,805	188,515	7,287,456

* Includes green cut timber products only.

Table 36 - AVERAGE ANNUAL CUTTING DEPLETION° - ALL TIMBER PRODUCTS

(By Products and Tree Size)

NORTHEASTERN WASHINGTON

County	Material From Trees of Sawtimber Size M Board Feet - Log Scale							Material From Trees of Less Than Sawtimber Size Cubic Feet					
	Sawlogs	Pulp-wood	Fuel-wood	Shingles	Posts	Hewed Ties	Total	Fuelwood	Poles	Piling	Posts	Hewed Ties	Total
Spokane	45,793	2,254	35,248		10		83,305	1,321,304	4,437	4,955	61,341		1,392,037
Stevens	61,944	3,022	30,223	149	291	3,996	99,625	1,080,934	457,762		81,943	116,585	1,737,224
Pend Oreille	50,661	1,193	4,238	43	3,422		59,557	237,618	1,746,740	253,658	87,151		2,325,167
Total	158,398	6,469	69,709	192	3,723	3,996	242,487	2,639,856	2,208,939	258,613	230,435	116,585	5,454,428

°Includes green-cut timber only.

Table 37 - AVERAGE ANNUAL CUTTING DEPLETION° - ALL TIMBER PRODUCTS

NORTHERN IDAHO

(By products and tree size)

County	Material cut from trees of sawtimber size. M board feet log scale								Material cut from trees of less than sawtimber size. Cubic feet						
	Sawlogs	Pulpwood	Fuelwood	Shingles	Hewed Ties	Piling	Posts	Stulls	Total	Fuelwood	Hewed Ties	Poles	Piling	Posts	Stulls	Total
Benewah	71,026	2,503	2,917	159			154		76,759	113,176		713,316	5,812	3,702		836,006
Bonner	97,756	1,858	15,295	423	139	223	1,990	60	117,744	1,028,646	4,060	1,478,490	50,015	47,766	546	2,609,523
Boundary	22,358	2,521	4,259		143	34	419	7	29,741	189,372	4,168	1,548,763	106,427	20,175		1,868,905
Clearwater	110,363	719	7,149	5	189		431		118,856	199,692	5,513	1,682,337	3,917	53,511		1,944,970
Idaho	1,627		3,893	4			165	22	5,711	177,504		181,086		262,919		621,509
Kootenai	82,358	2,065	13,746	956			213	3,458	102,796	703,308		125,875		35,972	31,270	896,425
Latah	63,951	417	13,060				409		77,837	333,680		208,319		50,224		592,223
Lewis	16,484		7,825						24,309	180,084				9,828		189,912
Nezperce	237		5,453						5,690	113,950				335		114,285
Shoshone	75,946	114	6,890				21	3,599	86,570	122,550		118,130		496	32,546	273,722
Total	542,106	10,197	80,487	1,547	471	257	3,802	7,146	646,013	3,161,962	13,741	6,056,316	166,171	484,928	64,362	9,947,480

° Includes greencut timber only.

Table 38 AVERAGE ANNUAL CUTTING DEPLETION° - ALL TIMBER PRODUCTS

WESTERN MONTANA

(By products and tree size)

County	Material from trees of sawtimber size. M board feet log scale									Material from trees of less than sawtimber size. Cubic feet							
	Sawlogs	Pulpwood	Fuelwood	Shingles	Posts	Piling	Converter Poles	Mine Stulls	Hewed ties	Total	Fuelwood	Posts	Poles	Piling	Hewed ties	Mine Stulls	Mine Props	Converter Poles	Total
Deerlodge	69		301					54		424	5,848	29,473				100,289	307	142,142	278,059
Flathead	67,917	947	13,617	8	725	73	96		223	83,606	260,236	159,239	349,060			6,500			775,035
Granite	365		1,398					20	194	1,977	26,574	63,029				5,775	11,257		106,635
Lake	18,759		6,442	50	144					25,395	123,066	72,463	18,300						213,829
Lincoln	51,137	680	3,533	1	172	195	563		327	56,608	67,424	48,284	288,757	19,584	9,548				433,597
Mineral	3,926		1,233		31					5,190	33,564	3,303							26,867
Missoula	36,084		8,807					5,222		50,113	168,216	76,734				547,044			791,994
Powell	383		468					29	11	891	8,944	149,094			329	54,466	52,945		265,778
Ravalli	12,552		5,096	1						17,649	97,438	33,684							131,122
Sanders	30,329	81	1,179	4	937	2		244	416	33,192	22,532	89,518	38,859		12,138				163,047
Silverbow	77		113					28		218	2,064	27,961				51,779			81,804
Total	221,598	1,708	42,187	64	2,009	270	659	5,597	1,171	275,263	805,906	752,782	694,976	19,584	34,290	764,835	53,252	142,142	3,267,767

° Includes greencut timber only.

Table 39 AVERAGE ANNUAL CUTTING DEPLETION * - ALL TIMBER PRODUCTS

EASTERN MONTANA

(By products and tree size)

County	Material from trees of sawtimber size. M board feet Log scale						Material from trees of less than sawtimber size. Cubic feet						
	Sawlogs	Fuelwood	Shingles	Hewed ties	Mine Stulls	Total	Fuelwood	Fence Posts	Hewed ties	Poles & Piling	Mine Stulls	Mine Props	Fence Poles	Total
Beaverhead	280	77			3	360	4,386	73,436			5,602		237,000	320,424
Bighorn	64	342				406	6,536	70,845					20,000	97,381
Blaine	144	490				634	9,460	6,952		96		1,837	32,000	50,345
Broadwater	172	725	5			902	95,460	48,038					10,000	153,498
Carbon	68	3,421				3,489	76,368	183,632				22,183	15,000	297,183
Carter	762	189				951	3,612	52,925					51,000	107,537
Cascade	16	823				839	21,844	7,397		408		63,111	21,000	113,760
Chouteau	1	553				554	10,664	10,520				350	25,000	46,534
Custer	3	171				174	3,268	57,102					29,000	89,370
Daniels		184				184	3,612	42,442						46,054
Dawson		220				220	4,300	54,902						59,202
Fallon		130				130	2,580	37,262						39,842
Fergus	194	2,795	4			2,993	369,800	260,053				608	32,000	662,461
Gallatin	946	11,475	3	1,497		13,921	528,040	146,137	14,553	1,764			6,000	696,494
Garfield		216				216	4,128	59,955						64,083
Glacier	295	243				538	4,644	4,137					15,000	23,781
Golden Valley	22	964				986	21,672	106,283				344	19,000	147,299
Hill	84	504	2			590	9,632	8,059						17,691
Jefferson	182	1,033	1		32	1,248	137,084	36,946			59,743		12,000	245,773
Judith Basin	30	357				387	6,880	112,514			415	431	22,000	142,240
Lewis & Clark	392	1,157	1			1,550	152,736	65,254					23,000	240,990
Liberty		166				166	3,268	3,244						6,512
McCone		216				216	4,128	48,967						53,095
Madison	425	7,897			1	8,323	359,136	114,294			1,644		36,000	511,074
Meagher	74	659	1	53		787	87,032	82,113	1,533				17,000	187,678
Musselshell	67	2,026				2,093	45,408	139,396				126,992	13,000	324,796
Park	523	5,254		22		5,799	332,132	114,787	658	144		129	21,000	468,850
Petroleum		103				103	2,064	53,428					7,000	62,492
Phillips	57	490				547	9,460	8,437					35,000	52,897
Pondera	26	315				341	6,020	4,516				410	11,000	21,946
Powder River	303	180				483	3,440	57,444				180	52,000	113,064
Prairie		139				139	2,752	34,595						37,347
Richland		301				301	5,848	58,217						64,065
Roosevelt	13	481				494	9,288	54,157						63,445
Rosebud	368	252				620	4,816	66,726		300			35,000	106,842
Sheridan		355				355	6,880	63,000						69,880
Stillwater	27	6,007				6,034	350,536	115,920				118	25,000	491,574
Sweetgrass	476	3,050				3,526	138,460	100,433		1,344			38,000	278,237
Teton	50	396				446	7,568	5,872					20,000	33,440
Toole		355				355	6,880	4,189						11,069
Treasure	6	673				679	16,684	14,662						31,346
Valley		3,550				3,550	67,940	92,539						160,479
Wheatland	22	978				1,000	21,844	90,094						111,938
Wibaux		117				117	2,236	21,474						23,710
Yellowstone	3	3,712				3,715	82,216	249,523					8,000	339,739
Total	6,095	63,741	17	1,572	36	71,461	3,052,742	3,042,818	16,744	4,056	67,404	116,892	887,000	7,287,456

* Includes greencut timber only.

Table 40 AVERAGE ANNUAL DEPLETION BY CUTTING FROM GREENTIMBER RESOURCES - REGION ONE

M board feet log scale

(By species)

	Cedar	Douglas fir	Hemlock	Idaho White pine	Larch	Lodgepole pine	Engelmann spruce	Ponderosa pine	White fir	Cotton-wood	Birch	Aspen	Juniper	Ash	Box-elder	Elm	Willow	Total
Northeastern Washington	17,849	44,211	513	31,838	41,584	4,501	5,359	115,209	10,753	671								272,488
Northern Idaho	45,822	81,639	4,555	301,913	69,538	4,283	7,934	134,123	43,166	3,659	1,273							697,905
Western Montana	5,451	55,806	370	10,883	75,039	6,069	7,519	121,378	856	8,452								291,823
Eastern Montana		11,338				9,945	446	26,522	38	57,157		162	1,881	171	20	20	943	108,438
Total	69,122	192,994	5,438	344,634	186,161	24,798	21,258	397,232	54,813	69,939	1,273	162	1,881	171	20	20	943	1,370,654

Table 41 AVERAGE ANNUAL DEPLETION BY CUTTING FROM GREENTIMBER RESOURCES - REGION ONE

M board feet log scale

(By products)

	Sawlogs	Poles	Piling	Hewed ties	Shingles	Pulpwood	Converter poles	Mine Stulls	Mine Props	Fence poles	Fence posts	Fuelwood	Total
Northeastern Washington	158,398	10,892	1,361	5,329	192	6,469					4,790	85,057	272,488
Northern Idaho	542,106	29,864	1,131	628	1,547	10,197		7,513			6,047	98,872	697,905
Western Montana	221,598	3,427	373	1,563	64	1,708	1,237	9,280	205		5,495	46,873	291,823
Eastern Montana	6,095	21*		1,763	17			361	817	3,548	14,326	81,490	108,438
Total	928,197	44,204	2,865	9,283	1,820	18,374	1,237	17,154	1,022	3,548	30,658	312,292	1,370,654

* Includes piling.

Table 42 - AVERAGE ANNUAL PRODUCTION OF MINOR TIMBER PRODUCTS

NORTHEASTERN WASHINGTON

County	Poles 1/ Lin. Feet	Piling 1/ Linear Feet			Hewed Ties 2/ Pieces			Shingles 3/ Squares	Pulpwood 4/ Cords			
	Cedar	Cedar	Larch	Total	Doug. Fir	Larch	Total	Cedar	Hemlock	Spruce	White Fir	Total
Spokane	7,650	6,520		6,520						3	4,505	4,508
Stevens	789,245				69,270	63,950	133,220	1,340		2,797	3,247	6,044
Pend Oreille	3,011,620	332,160	1,600	333,760				392	21	519	1,746	2,386
Total	3,808,515	338,680	1,600	340,280	69,270	63,950	133,220	1,732	21	3,319	9,498	12,938

County	Fence Posts 6/ Pieces					Fuelwood 6/ Cords						
	Cedar 5/	Douglas Fir	Larch	Pond. Pine	Total	Dead-cut	Green-cut					Total
							Doug. Fir	L.P. Pine	P. Pine	Larch	Cot. Wd.	
Spokane	4,550	1,890	4,080	50,600	61,120	6,910	23,970	6,540	35,200	20,150		92,770
Stevens	129,450	24,060	45,340		198,850	2,414	26,655	1,710	15,730	27,640	1,280	75,429
Pend Oreille	1,520,700		4,660		1,525,360	15,709	5,410	643	194	4,992		26,948
Total	1,654,700	25,950	54,080	50,600	1,785,330	25,033	56,035	8,893	51,124	52,782	1,280	195,147

1/ 1930
2/ 1934
3/ 1925-1934 inclusive
4/ 1927-1934 inclusive
5/ Half from dead timber
6/ From special study made in 1935.

Table 45 AVERAGE ANNUAL PRODUCTION OF MINOR TIMBER PRODUCTS

NORTHERN IDAHO

County	Poles 1/ -Linear feet-	Piling 1/ -Linear feet-				Hewed Ties 1/ -Pieces-			Shingles2/ -Squares-	Pulpwood 3/ -Cords-				Round Mine Timbers 4/ -Linear feet-					
	Cedar	Cedar	Douglas Fir	Larch	Total	Douglas Fir	Larch	Total	Cedar	Hemlock	Spruce	White Fir	Total	Douglas Fir	Hemlock	Larch	Spruce	Pond. Pine	Total
Benewah	1,229,856	7,648			7,648				1,430		788	4,218	5,006						
Bonner	2,549,120	65,809	22,256	33,384	121,449	2,255	2,383	4,638	3,808	302	587	2,827	3,716	7,922	2,411	6,200		689	17,222
Boundary	2,670,281	140,035	3,382	5,072	148,489	1,556	3,094	4,760		188	1,670	3,184	5,042			247	445	957	1,649
Clearwater	2,900,521	5,154			5,154	3,778	2,519	6,297	48		52	1,386	1,437						
Idaho	312,218								37					3,774	1,497			719	5,990
Kootenai	217,026								8,607		889	3,242	4,131	513,269	9,871	424,434		39,482	987,056
Latah	359,171											833	833						
Lewis																			
Nezperce																			
Shoshone	203,673											228	228	534,218	10,274	441,757		41,094	1,027,343
Total	10,441,926	218,646	25,638	38,456	282,740	7,599	7,996	15,695	13,930	490	3,986	15,917	20,393	1,059,183	24,053	872,638	445	82,941	2,039,260

County	Fenceposts 6/ -Pieces-				Fuelwood 6/ -Cords-									
	Cedar 5/	Douglas Fir	Larch	Pond. Pine	Total	Deadcut	Douglas Fir	Lodgepole Pine	Pond. Pine	Larch	Cottonwood	Hemlock	Birch	White Fir	White Pine	Total
Benewah	68,558				68,558	14,578	4,880		570	1,415	285					21,728
Bonner	884,566				884,566	22,999	12,560	2,558	1,453	19,877	3,660	185	2,265			65,551
Boundary	186,191		9,370		195,561	6,407	3,810			4,970	1,660		280			17,127
Clearwater	191,730	39,960			231,690	8,170	9,850		6,680	90						24,790
Idaho	73,204	81,310	158,470		312,984	25,660	1,215	1,740	5,680	405				810		35,510
Kootenai	94,540		17,110	11,470	123,130	24,383	9,045	3,760	12,860	9,645	360					61,053
Latah	181,658	13,660	25,760		219,078	13,967	13,090		11,006	3,555		2,350				43,867
Lewis		9,100			9,100		10,470		7,275							17,745
Nezperce		310			310	7,960	4,565		5,095	1,550	1,020					20,190
Shoshone	9,172				9,172	27,831	2,000		9,510	2,795		1,000		100		43,036
Total	1,689,619	144,340	208,710	11,470	2,054,139	152,855	71,485	8,058	59,928	44,302	6,985	3,535	2,545	810	100	350,597

1/ 1927-1929-1931-1933
2/ 1925-1934 inclusive.
3/ 1927-1934 inclusive
4/ 1928-1932 inclusive.
5/ Half deadcut posts
6/ From special study made in 1935.

Table 44 AVERAGE ANNUAL PRODUCTION OF MINOR TIMBER PRODUCTS

WESTERN MONTANA

County	Poles 1/ -Linear feet-		Piling 1/ -Linear feet-			Hewed Ties 1/ -Pieces-			Shingles2/ -Squares-	Pulpwood 3/ -Cords-			Converter Poles 4/ -Pieces-			
	Cedar	Lodgepole Pine	Douglas Fir	Larch	Total	Douglas Fir	Larch	Total	Cedar	Spruce	White Fir	Total	Douglas Fir	Larch	Pond. Pine	Lodgepole Pine	Total
Deerlodge																38,520	38,520
Flathead	442,140	159,687	5,457	12,734	18,191	2,227	5,200	7,427	74	1,714	179	1,893	273	636	160		1,069
Granite						6,500		6,500									
Lake	31,552								453								
Lincoln	497,857		25,769	14,631	34,138	3,275	7,638	10,911	12	631	729	1,360	1,596	3,724	939		6,259
Mineral																	
Missoula									1								
Powell						375		375									
Ravalli									5								
Sanders	66,999		206	310	516	5,549	8,324	13,873	30	114	49	163					
Silverbow																	
Total	1,038,548	159,687	25,769	30,294	47,182	93,245	17,924	21,162	39,086	575	2,459	957	3,416	1,869	4,360	1,099	38,520	45,848

County	Fenceposts 6/ -Pieces-						Fuelwood 6/ -Cords-						Mine 1/ Props	Stulls 1/ -Pieces-					
	Cedar 5/	Douglas Fir	Larch	Pond. Pine	Lodgepole	Cotton-wood	Total	Deadcut	D. Fir	L.P.Pine	Greencut- Pond.Pine	Larch	Cottonwood	Total	(Lin.Ft.)	L.P.Pine	Douglas Fir	Larch	L.P.Pine	Pond. Pine	Total
Deerlodge					27,290		27,290	13,795					670	14,465	1,416				13,425		13,425
Flathead	322,278	51,450	79,880				453,608	36,874	10,080	3,740	3,740	12,700		66,134							
Granite					58,360		58,360	9,025	1,995	860	250			12,130			1,855				1,855
Lake	63,895		57,510	6,390			127,795	16,600	12,815		865	635		30,915							
Lincoln	76,562	26,600	14,280				117,442	20,224	1,660		3,680	2,510		28,074							
Mineral	13,958	520	1,400	440			16,318	6,060			2,740			8,800							
Missoula		42,980	19,300	8,770			71,050	14,705			11,475		8,095	34,275			118,787	69,537		8,121	196,445
Powell					138,050		138,050	11,150					1,040	12,190	244,356				7,266		7,266
Ravalli		13,510	2,080	5,200	5,200		31,190	23,655	150	60	4,125		6,990	34,980							
Sanders	416,536	4,600	14,940	42,520			478,596	21,724			2,620			24,344						6,091	6,091
Silverbow				25,890			25,890	22,240	250					22,490					6,931		6,931
Total	893,229	139,660	189,390	83,320	254,790	5,200	1,565,589	195,052	26,950	4,660	29,495	15,845	16,795	288,797	245,772	120,642	69,537	27,622	14,212	232,013

1/ 1927-1929-1931-1933
2/ 1925-1934 inclusive.
3/ 1927-1934 inclusive.
4/ 1929-1931-1933
5/ Half from dead timber.
6/ From special study made in 1935.

Table 45 AVERAGE ANNUAL PRODUCTION OF MINOR TIMBER PRODUCTS

EASTERN MONTANA

County	Poles and Piling[1] Lodgepole Pine	Hewed Ties[1] -Pieces- Doug. Fir	L.P.Pine	Total	Shingles[2] -Squares- L.P.Pine	Pond. Pine	Total	Stulls[1] -Pieces- L.P.Pine	Coal Mine Props[3] -Linear feet- Doug. Fir	L.P.Pine	Pond. Pine	Total	Fenceposts[4] -Pieces- L.P.Pine	Pond. Pine	Total
	Linear feet														
Beaverhead								750					237,000		237,000
Bighorn														20,000	20,000
Blaine	240										8,348	8,348		32,000	32,000
Broadwater					43		43						10,000		10,000
Carbon										97,109		97,109	15,000		15,000
Carter														51,000	51,000
Cascade	1,020									286,867		286,867	21,000		21,000
Chouteau										1,593		1,593	25,000		25,000
Custer														29,000	29,000
Daniels															
Dawson															
Fallon															
Fergus						40	40		1,842		920	2,762	32,000		32,000
Gallatin	4,410		41,579	41,579	27		27						6,000		6,000
Garfield															
Glacier													15,000		15,000
Golden Valley											1,563	1,563	19,000		19,000
Hill						22	22								
Jefferson						6	6	7,998					12,000		12,000
Judith Basin								50			1,958	1,958	22,000		22,000
Lewis & Clark						9	9						23,000		23,000
Liberty															
McCone															
Madison								220					36,000		36,000
Meagher		1,751		1,751		10	10						17,000		17,000
Musselshell											577,237	577,237		13,000	13,000
Park	360	750								588		588	21,000		21,000
Petroleum														7,000	7,000
Phillips														35,000	35,000
Pondera										1,865		1,865	11,000		11,000
Powder River											818	818		52,000	52,000
Prairie															
Richland															
Roosevelt															
Rosebud	750													35,000	35,000
Sheridan															
Stillwater										535		535	25,000		25,000
Sweetgrass	3,360												38,000		38,000
Teton													20,000		20,000
Toole															
Treasure															
Valley															
Wheatland															
Wibaux															
Yellowstone													8,000		8,000
Total	10,140	2,501	41,579	44,080	70	87	157	9,018	1,842	388,557	590,844	981,243	613,000	274,000	887,000

County	Fenceposts[4] -pieces- Douglas Fir	Pond. Pine	L.P.Pine	Cottonwood	Aspen	Juniper	Ash	Box-elder	Elm	Willow	Total	Deadcut	Fuelwood[4] -cords- Greencut- D.Fir	L.P.Pine	P.Pine	Cottonwood	Total
Beaverhead	38,476		9,161		42,140	1,832					41,609	25,480	205				25,685
Bighorn				32,129		72,289					104,418	5,365				760	6,125
Blaine				4,404						4,404	8,808	3,325				1,090	4,415
Broadwater	29,227	11,437		3,812							44,476	6,280		350	2,030	180	8,840
Carbon			71,935	98,093							170,028	5,390			380	7,350	13,120
Carter				24,003		54,006					78,009	3,380				420	3,800
Chouteau	5,719		715							7,148	13,582	3,870				1,230	5,100
Cascade	4,025		503							5,031	9,559	6,290		80		1,820	8,190
Custer				25,895		58,264					84,159	3,390				380	3,770
Daniels				10,404	3,121	2,081	9,364	1,041	1,040	45,779	72,830	3,485				410	3,895
Dawson				24,899		56,023					80,922	4,190				490	4,680
Fallon				16,896		38,015					54,911	2,370				290	2,660
Fergus	158,233	61,917		20,639							240,789	25,200		1,370	7,840	680	35,090
Gallatin	117,940	929		2,600		29,903					151,372	10,260	3,090	1,220	6,380	18,400	39,350
Garfield				27,191		61,180					88,371	3,900				480	4,380
Glacier	2,248		281							2,811	5,340	1,775				540	2,315
Golden Valley		98,413									98,413	1,390			110	2,070	3,570
Hill	4,376		547							5,470	10,393	3,510				1,120	4,630
Jefferson	22,475	8,795		2,931							34,201	8,970		510	2,900	250	12,630
Judith Basin	68,465	26,791		8,930							104,186	2,385				795	3,180
Lewis & Clark	11,480	46,524	2,417								60,421	12,020		560	3,250	280	16,110
Liberty	1,765		221							2,207	4,193	1,100				370	1,470
McCone				22,208		49,968					72,176	3,870				480	4,350
Madison	92,243	726		2,034		23,387					118,390	5,970	2,070	780	4,410	12,710	25,940
Meagher	49,965	19,552		6,517							76,034	5,710		320	1,650	160	8,040
Musselshell		129,070									129,070	3,080			230	4,350	7,660
Park	92,640	729		2,042		23,488					118,899	6,800	1,490	560	3,170	9,150	21,170
Petroleum	32,506	12,720		4,240							49,466	1,850				230	2,080
Phillips				5,342						5,342	10,684	3,110				1,090	4,200
Pondera	2,454		307							3,067	5,828	2,170				700	2,870
Powder River				26,052		58,617					84,669	3,240				400	3,640
Prairie				15,691		35,305					50,996	2,520				310	2,830
Richland				14,268	4,280	2,854	12,841	1,427	1,427	62,781	99,878	5,585				670	6,255
Roosevelt				13,273	3,982	2,655	11,946	1,327	1,327	58,403	92,913	6,080				1,070	7,150
Rosebud				30,261		68,087					98,348	4,730				560	5,290
Sheridan				15,442	4,633	3,088	13,898	1,544	1,544	67,946	108,095	6,555				790	7,345
Stillwater		58,418		26,135		49,194					133,747	4,810	1,670	630	3,550	10,240	20,900
Sweetgrass	81,051	638		1,787		20,550					104,026	2,820	800	300	1,700	4,910	10,530
Teton	3,191		399							3,989	7,579	2,640				880	3,520
Toole	2,278		285							2,847	5,410	2,390				790	3,180
Treasure				6,647		14,957					21,604	990			80	1,460	2,530
Valley				22,681	6,804	4,536	20,413	2,268	2,268	99,796	158,766	2,300				7,890	10,190
Wheatland	54,824	21,453		7,151							83,428	1,605			110	2,100	3,815
Wibaux				9,736		21,907					31,643	2,090				260	2,350
Yellowstone		189,507	10,384	31,152							231,043	5,255			390	7,990	13,635
Total	875,581	687,619	97,155	565,485	64,960	752,186	68,462	7,607	7,606	377,021	3,503,682	229,495	9,325	6,680	38,380	108,595	392,475

1/ 1927-1929-1931-1933
2/ 1925-1934 inclusive
3/ 1932-1933
4/ From a special study made in 1935.

Table 46 AVERAGE ANNUAL PRODUCTION OF MINOR TIMBER PRODUCTS

NORTHEASTERN WASHINGTON

(M board feet Log Scale)

County	Poles 1/	Piling 1/			Hewed ties 2/			Shingles 3/	Pulpwood 4/				Fence posts 5/						
													-Greencut-				Deadcut		Total
	Cedar	Cedar	Larch	Total	D. Fir	Larch	Total	Cedar	Hemlock	Spruce	W. Fir	Total	Cedar	D.Fir	Larch	P.Pine	Cedar		
Spokane	22	26		26						1	2,253	2,254	12	10	20	253	11		306
Stevens	2,257				2,771	2,558	5,329	149		1,399	1,623	3,022	323	120	227		324		994
Pend Orielle	8,613	1,329	6	1,335				43	10	310	873	1,193	3,802		23		3,802		7,627
Total	10,892	1,355	6	1,361	2,771	2,558	5,329	192	10	1,710	4,749	6,469	4,137	130	270	253	4,137		8,927

County	Fuelwood 5/							TOTALS										
	Deadcut	-Greencut-					Total	Deadcut 6/	-Greencut-									Total
		D. Fir	L.P.Pine	P.Pine	Larch	Cottonwood			Cedar	D. Fir	Hemlock	Larch	L.P.Pine	Spruce	P.Pine	W.Fir	Cottonwood	
Spokane	3,455	11,985	3,270	17,600	10,075		46,385	3,466	60	11,995		10,095	3,270	1	17,853	2,253		48,993
Stevens	1,207	13,328	855	7,865	13,820	640	37,715	1,531	2,729	16,219		16,605	855	1,399	7,865	1,623	640	49,466
Pend Orielle	7,855	2,705	321	97	2,496		13,474	11,657	13,787	2,705	10	2,525	321	310	97	873		32,285
Total	12,517	28,018	4,446	25,562	26,391	640	97,574	16,654	16,576	30,919	10	29,225	4,446	1,710	25,815	4,749	640	130,744

1/ 1930
2/ 1934
3/ 1925-1934 inclusive.
4/ 1927-1934
5/ From special study made in 1935.
6/ Fuelwood and fenceposts.

Table 47 AVERAGE ANNUAL PRODUCTION OF MINOR TIMBER PRODUCTS

NORTHERN IDAHO

(M board feet Log Scale)

County	Poles 1/	Piling 1/				Hewed ties 1/			Shingles 2/	Pulpwood 3/				Mine timbers 4/					
	Cedar	Cedar	D.Fir	Larch	Total	D.Fir	Larch	Total	Cedar	Hemlock	Spruce	W. Fir	Total	D.Fir	Hemlock	Larch	Spruce	P.Pine	Total
Benewah	3,517	30			30				159		394	2,109	2,503						
Bonner	7,290	263	89	134	486	90	95	185	423	151	294	1,413	1,858	29	9	23		3	64
Boundary	7,637	560	14	20	594	67	124	191		94	835	1,592	2,521			1	2	3	6
Clearwater	8,296	21			21	151	101	252	5		26	693	719						
Idaho	893								4					13	6			3	22
Kootenai	621								956		444	1,621	2,065	1,891	36	1,563		146	3,636
Latah	1,027											417	417						
Lewis																			
Nezperce																			
Shoshone	583											114	114	1,968	38	1,628		151	3,785
Total	29,864	874	103	154	1,131	308	320	628	1,547	245	1,993	7,959	10,197	3,901	89	3,215	2	306	7,513

County	Fenceposts 5/							Fuelwood 5/										
	Deadcut	-Greencut-				Total		Deadcut	-Greencut-									Total
		Cedar	D.Fir	Larch	P.Pine				Doug.Fir	L.P.Pine	P.Pine	Larch	Cottonwood	Hemlock	Birch	W.Fir	I.W.Pine	
Benewah	172	171				343	7,289	2,440		285	708	142						10,864
Bonner	2,211	2,211				4,422	11,499	6,280	1,276	727	9,936	1,830	93	1,133				32,776
Boundary	465	466		47		978	3,204	1,905			2,485	830		140				8,564
Clearwater	479	479	200			1,158	4,085	4,925		3,340	45							12,395
Idaho	183	183	407	792		1,565	12,830	607	870	2,840	203				405			17,755
Kootenai	237	236		86	57	616	12,692	4,523	1,880	6,430	4,822	180						30,527
Latah	454	454	68	119		1,095	6,933	6,545		5,503	1,777		1,175					21,933
Lewis			46			46		5,235		3,637								8,872
Nezperce			2			2	3,980	2,283		2,547	775	510						10,095
Shoshone	23	23				46	13,915	1,000		4,655	1,398		500			50		21,518
Total	4,224	4,223	723	1,044	57	10,271	76,427	35,743	4,026	29,964	22,151	3,492	1,768	1,273	405	50		175,299

County	TOTAL													
	Deadcut	-Greencut-												Total
		Cedar	DouglFir	Hemlock	I.W.Pine	Larch	L.P.Pine	Spruce	P.Pine	W.Fir	Cottonwood	Birch		
Benewah	7,461	3,877	2,440			708		394	285	2,109	142			17,416
Bonner	13,710	10,187	6,488	253		10,190	1,276	294	730	1,413	1,830	1,133		47,504
Boundary	3,669	8,663	1,986	94		2,677		837	3	1,592	830	140		20,491
Clearwater	4,564	8,801	5,276			146		26	3,340	693				22,846
Idaho	13,013	1,080	1,027	6		995	870		2,843	405				20,239
Kootenai	12,929	1,813	6,414	36		6,471	1,880	444	6,633	1,621	180			38,421
Latah	7,387	1,481	6,613	1,175		1,896			5,503	417				24,472
Lewis			5,281						3,637					8,918
Nezperce	3,980		2,285			775			2,547		510			10,097
Shoshone	13,938	606	2,968	538	50	3,026			4,806	114				26,046
Total	80,651	36,508	40,778	2,102	50	26,884	4,026	1,995	30,327	8,364	3,492	1,273		236,450

1/ 1927-1929-1931-1933
2/ 1925-1934 inclusive.
3/ 1927-1934 inclusive.
4/ 1928-1932 inclusive.
5/ From special study made in 1935.

Table 48 AVERAGE ANNUAL PRODUCTION OF MINOR TIMBER PRODUCTS

WESTERN MONTANA

(M board feet Log Scale)

County	Poles 1/			Piling 1/				Hewed Ties 1/			Shingles 2/	Pulpwood 3/			Converter poles 4/				
	Cedar	L.P.Pine	Total	Cedar	D.Fir	Larch	Total	D.Fir	Larch	Total	Cedar	Spruce	W.Fir	Total	D.Fir	Larch	P.Pine	Lodgepole Pine	Total
Deerlodge																		578	578
Flathead	1,265	457	1,722		22	51	73	89	208	297	8	857	90	947	25	57	14		96
Granite								260		260									
Lake	90		90								50								
Lincoln	1,424		1,424	103	58	137	298	131	305	436	1	316	364	680	143	335	85		563
Mineral																			
Missoula																			
Powell								15		15									
Ravalli											1								
Sanders	191		191		1	1	2	222	333	555	4	57	24	81					
Silverbow																			
Total	2,970	457	3,427	103	81	189	373	717	846	1,563	64	1,230	478	1,708	168	392	99	578	1,237

County	Fenceposts 5/								Fuelwood 5/							Mine Props 1/	Stulls 1/				
	Deadcut	Greencut						Total	Deadcut	Greencut					Total	L.P. Pine	D.Fir	Larch	L.P.Pine	P.Pine	Total
		Cedar	D.Fir	Larch	P.Pine	L.P.Pine	Cottonwood			D. Fir	L.P.Pine	P.Pine	Larch	Cottonwood							
Deerlodge						137		137	6,898					335	7,233	1			537		537
Flathead	806	806	257	399				2,268	17,937	5,040	1,870	1,870	6,350		33,067						
Granite						292		292	4,513	997	430	125			6,065		74				74
Lake	159	160		288	32			639	8,300	6,407		433	318		15,458						
Lincoln	192	191	133	71				587	10,112	830		1,840	1,255		14,037						
Mineral	35	35	3	7	2			82	3,030			1,370			4,400						
Missoula			214	97	44			355	7,352			5,737		4,048	17,137		4,751	2,782		325	7,858
Powell						690		690	5,575					520	6,095	204			290		290
Ravalli			68	10	26	26	26	156	11,827	75	30	2,063		3,495	17,490						
Sanders	1,041	1,041	23	75	213			2,393	10,862			1,310			12,172					243	243
Silverbow						129		129	11,120	125					11,245				278		278
Total	2,233	2,233	698	947	317	1,274	26	7,728	97,526	13,474	2,330	14,748	7,923	8,398	144,399	205	4,825	2,782	1,105	568	9,280

County	TOTAL									
	Greencut							Deadcut 6/	Total
	Cedar	D. Fir	Larch	L.P.Pine	Spruce	P.Pine	W.Fir	Cottonwood		
Deerlodge				1,252				335	6,898	8,485
Flathead	2,079	5,433	7,065	2,327	857	1,884	90		18,743	38,478
Granite		1,331		722		125			4,513	6,691
Lake	300	6,407	606			465			8,459	16,237
Lincoln	1,719	1,295	2,103		316	1,925	364		10,304	18,026
Mineral	35	3	7			1,372			3,065	4,482
Missoula		4,965	2,879			6,106		4,048	7,352	25,350
Powell		15		1,185				520	5,575	7,295
Ravalli	1	143	10	56		2,089		3,521	11,827	17,647
Sanders	1,236	246	409		57	1,766	24		11,903	15,641
Silverbow		125		407					11,120	11,652
Total	5,370	19,963	13,079	5,949	1,230	15,732	478	8,424	99,759	169,984

1/ 1927-1929-1931-1933
2/ 1925-1934 inclusive.
3/ 1927-1934 inclusive.
4/ 1929-1931-1933
5/ From special study made in 1935.
6/ Fuelwood and fence posts

Table49 AVERAGE ANNUAL PRODUCTION OF MINOR TIMBER PRODUCTS

EASTERN MONTANA

(M board feet log scale)

County	Poles & Pilings 1/	Hewed ties 1/			Shingles 2/		Stulls 1/	Coal mine props 3/			Fenceposts 4/														
	L.P.Pine	D.Fir	L.P.Pine	Total	L.P.Pine	Pond.Pine	Total	L.P.Pine	D.Fir	L.P.Pine	Pond.Pine	Total	L.P.Pine	Pine	Pond. Fir	Total	Douglas Fir	Pond. Pine	L.P.Pine	Cottonwood	Aspen	Juniper	Ash	Box-elder	Elm	Willow	Total
Beaverhead								30					948		948	192			46		105	5					348
Bighorn														80	80				161		181						342
Blaine	1									7	7			128	128				22						11		33
Broadwater						5	5						40		40	146	57		19								222
Carbon									82		82		60		60			360	491								851
Carter														204	204				120		135						255
Cascade	2								238		238		84		84	20		3							13		36
Chouteau									1		1		100		100	29		4							18		51
Custer														116	116				129		146						275
Daniels																			52	8	5	23	3	3	114		208
Dawson																			124		140						264
Fallon																			84		95						179
Fergus						4	4		2		1	3	128		128	791	310		105								1,204
Gallatin	9			1,663	1,663	3	3						24		24	590	5		13		75						683
Garfield																			136		153						289
Glacier													60		60	11		1							7		19
Golden Valley										1	1		76		76		492										492
Hill						2	2									22		3							14		39
Jefferson						1	1	380					48		48	118	44		15								171
Judith Basin								2			2	2	88		88	342	134		45								521
Lewis & Clark						1	1						92		92	57	233	12									302
Liberty																9		1							6		16
McCone																			111		125						236
Madison								9					144		144	461	4		10		58						533
Meagher		70			70	1	1						68		68	250	98		33								381
Musselshell										479	479			52	52		645										645
Park	1	30			30				1		1		84		84	463	4		10		59						536
Petroleum														28	28	163	64		21								248
Phillips														140	140				27								40
Pondera									1		1		44		44	12		2							13		72
Powder River										1	1			208	208				130		147						277
Prairie																			78		88						166
Richland																			71	11	7	53	4	4	157		286
Roosevelt																			66	10	7	30	3	3	146		265
Rosebud	1													140	140				151		170						321
Sheridan																			77	11	8	35	4	4	170		309
Stillwater									1		1		100		100		292		131		123						546
Sweetgrass	7												152		152	405	3		9		51						468
Teton													80		80	16		2							10		28
Toole																11		1							7		19
Treasure																			33		37						70
Valley																			113	17	11	51	6	6	249		453
Wheatland																274	107		36								417
Wibaux																			49		55						104
Yellowstone													32		32		948	52	156								1,156
Total	21	100		1,663	1,763	8	9	17	361	2	324	491	817	2,452	1,096	3,548	4,376	3,440	487	2,826	162	1,861	171	20	20	943	14,326

County	Fuelwood 2/					Total	TOTAL													Total
	Deadcut	Greencut- D.Fir	L.P.Pine	P.Pine	Cottonwood		Deadcut	Greencut- D.Fir	L.P.Pine	P.Pine	Cottonwood	Aspen	Juniper	Ash	Boxelder	Elm	Willow		
Beaverhead	12,740	102				12,842		294	1,024				105	5					12,740	14,168
Bighorn	2,682				360	3,042				80	541			181					2,682	3,484
Blaine	1,663				545	2,208			1	135	567						11		1,663	2,377
Broadwater	3,140		175	1,015	90	4,420		146	220	1,072	109								3,140	4,687
Carbon	2,695			190	3,675	6,560			502	190	4,166								2,695	7,553
Carter	1,690				210	1,900				204	330		135						1,690	2,359
Cascade	3,145		40		910	4,095		20	367		910						13		3,145	4,455
Chouteau	1,935				615	2,550		29	105		615						18		1,935	2,702
Custer	1,695				190	1,885				116	319		146						1,695	2,276
Daniels	1,742				205	1,947					257	8	5	23	3	3	114		1,742	2,155
Dawson	2,095				245	2,340					369		140						2,095	2,604
Fallon	1,185				145	1,330					229		95						1,185	1,509
Fergus	12,600		685	3,920	340	17,545	793	813	4,235		443								12,600	18,884
Gallatin	5,130	1,545	610	3,190	9,200	19,675	2,135	2,309	3,195		9,213		75						5,130	22,057
Garfield	1,950				240	2,190					376		153						1,950	2,479
Glacier	888				270	1,158	11	61			270							7	888	1,237
Golden Valley	695			55	1,035	1,785		76	548		1,035							14	1,755	2,356
Hill	1,755				560	2,315	22	3	2		560								4,485	6,855
Jefferson	4,485		255	1,450	125	6,315	112	623	1,435		140								1,192	2,203
Judith Basin	1,192				398	1,590	542	90	136		445								1,695	2,276
Lewis & Clark	6,010		280	1,625	140	8,055	57	364	1,859		140								6,010	8,450
Liberty	550				185	735	9				185							6	550	750
McCone	1,935				240	2,175					351		125						1,935	2,411
Madison	2,985	1,035	390	2,205	6,355	12,970	1,496	543	2,209		6,355		58						2,985	13,656
Meagher	2,855		160	925	80	4,020	320	228	1,024		116								2,855	4,540
Musselshell	1,540			115	2,175	3,830			1,291		2,175								1,540	5,006
Park	3,400	745	280	1,585	4,575	10,585	1,238	367	1,589		4,585		59						3,400	11,838
Petroleum	925				115	1,040	163		92		136								925	1,316
Phillips	1,555				545	2,100			140		572							13	1,555	2,280
Pondera	1,085				330	1,435	12	47			350							8	1,085	1,502
Powder River	1,620				200	1,820			209		330		147						1,620	2,306
Prairie	1,260				155	1,415					233		88						1,260	1,561
Richland	2,793				335	3,128					406	11	7	32		4	4	157	2,793	3,414
Roosevelt	3,040				535	3,575					601	10	7	30		3	3	146	3,040	3,840
Rosebud	2,365				280	2,645		1	140		431		170						2,365	3,107
Sheridan	3,277				395	3,672					472	11	8	35		4	4	170	3,277	3,981
Stillwater	2,405	835	315	1,775	5,120	10,450	835	415	2,067		5,251		123						2,405	11,097
Sweetgrass	1,410	400	150	850	2,455	5,265	805	309	853		2,464		51						1,410	5,892
Teton	1,330				440	1,770	16	82			440							10	1,330	1,868
Toole	1,195				395	1,590	11	1			398							7	1,195	1,609
Treasure	495			40	730	1,265				40	763		37						495	1,335
Valley	1,150				3,945	5,095					4,058	17	11	51		6	6	249	1,150	5,548
Wheatland	803			55	1,050	1,908	274		162		1,086								803	2,325
Wibaux	1,045				130	1,175					179		55						1,045	1,279
Yellowstone	2,628			195	3,995	6,818		84	1,143		4,151								2,628	8,006
Total	114,728	4,662	3,340	19,190	54,298	196,238	9,140	8,656	24,226		57,124	162	1,861	171		20	20	943	114,748	217,091

1/ 1927-1929-1931-1933
2/ 1925-1934 Inclusive
3/ 1932-1933
4/ From a special study made in 1935.

RE-NRM
Forest Survey

Table 50 - CONVERTING FACTORS - REGION ONE

LUMBER TALLY TO LOG SCALE

Species	Over-run percent
Cedar	33
Douglas fir	33
Hemlock	22
Idaho white pine	25
Larch	33
Lodgepole pine	20
Engelmann spruce	20
Ponderosa pine	16
White fir	22
Cottonwood	16

CUBIC FEET TO BOARD FEET FOR SAWLOGS

Cedar	1	cubic foot	= 5.75	board	feet
Douglas fir	1	" "	= 5.78	"	"
Hemlock	1	" "	= 6.12	"	"
Idaho white pine	1	" "	= 6.17	"	"
Larch	1	" "	= 6.47	"	"
Lodgepole pine	1	" "	= 5.34	"	"
Engelmann spruce	1	" "	= 5.92	"	"
White fir	1	" "	= 6.12	"	"
Ponderosa pine	1	" "	= 6.57	"	"
Cottonwood	1	" "	= 6.57	"	"

SHINGLES

800 pieces = 1 square
9 squares = 1,000 board feet log scale

CORDWOOD

1 cord = 500 board feet log scale
= 86 cubic feet

MINE TIMBERS

Montana

1 mine prop = 10 board feet log scale) 6" x 12'
= 2.6 cubic feet)
1 stull = 40 board feet log scale) 9" x 16'
= 8.3 cubic feet)

Idaho

1 stull = 70 board feet log scale) 10" x 19'
= 12.54 cubic feet)

HEWED TIES

1 tie = 40 board feet log scale
= 3.5 cubic feet

POSTS

Ash, elm, willow, juniper and aspen - 1 post = 2.5 board feet log scale
= .5 cubic feet
Other species - - - 1 post = 5 board feet log scale
= 1.08 cubic feet

POLES

West of divide
1 linear foot = 2.86 board feet log scale) top 8"x35' butt x12"
= .58 cubic feet)

East of divide
1 linear foot = 2 board feet log scale) 7" x 30'
= .4 cubic feet)

PILING

West of divide
1 linear foot = 4 board feet log scale) top 10¼"x25' butt x13"
= .76 cubic feet)

East of divide
1 linear foot = 2 board feet log scale) 7" x 30'
= .4 cubic feet)

CONVERTER POLES

Great Falls smelter - - - - - - - - = 1 piece = 90 board feet
Anaconda smelter - - - - - - - - - 1 piece = 15 board feet)
= 3.69 cubic feet)

FENCE POLES

1 piece = 4 board feet
= 1 cubic foot

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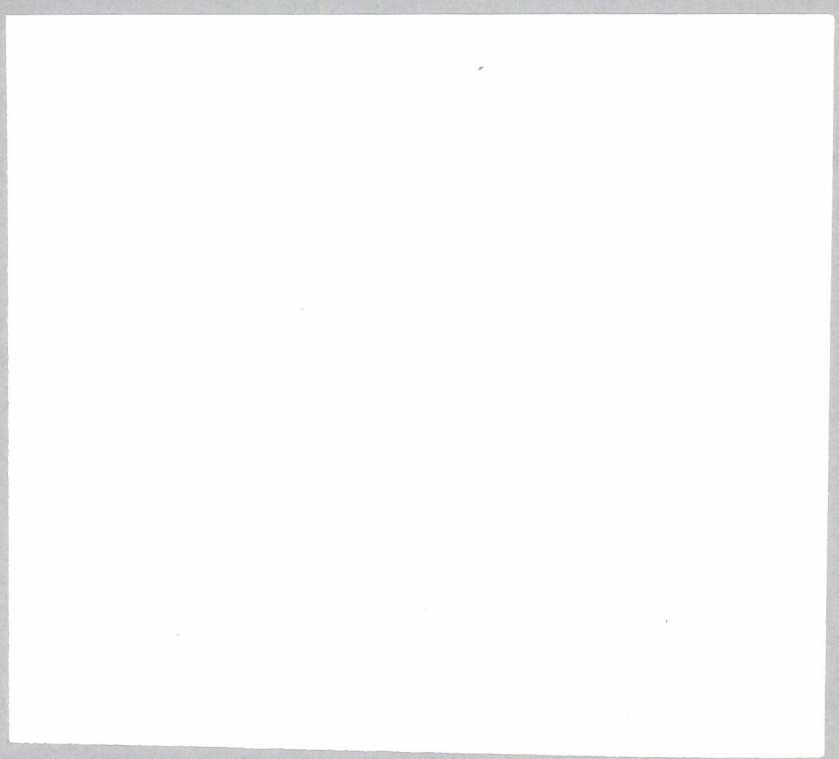
AUTHOR Hutchison, S. Blair

TITLE Cutting Depletion in the Northern Rocky Mountain Region including Sawlog Depletion in Southern Idaho.

Forest Survey Release No. 1 A.1936 Progress Report

(From Depletion Phase of the Forest Survey)

H. Bradner-Regional Director Forest Survey

S. B. Hutchinson & C. H. Whitney

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